DOCUMENT RESUME

ED 357 105 UD 029 164

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TITLE Growing Up Is Risky Business, and Schools Are Not To Blame. Final Report, Phi Delta Kappa Study of Students At Risk. Volume 1.

INSTITUTION Phi Delta Kappa, Bloomington, Ind.

SPONS AGENCY Ford Foundation, New York, N.Y.; John D. and Catherine T. MacArthur Foundation, Chicago, IL.

REPORT NO ISBN-0-87367-730-7

PUB DATE 92

NOTE 247p.; For a related document, see UD 029 165.

PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC10 Plus Postage.

DESCRIPTORS *Academic Failure; Case Studies; *Disadvantaged Youth; *Economically Disadvantaged; *Educationally Disadvantaged; Family Problems; Financial Problems; *High Risk Students; Minority Group Children; National Surveys; School Role; Secondary Education; *Secondary School Students; Sociocultural Patterns; Urban Schools; Urban Youth

IDENTIFIERS *Study of Students at Risk (Phi Delta Kappa)

ABSTRACT

The Phi Delta Kappa Study of Students At Risk assessed who is at risk, what puts students at risk, what schools are doing to help those students, and how effective these efforts are. Data were collected about 21,706 students, 9,652 teachers, and 276 principals; 65 case studies were completed; and holding power data about 27,250 students in 95 high schools were analyzed. This report describes the study, its methodology, and general results; general conclusions of the study; results of a statistical analysis that relates directly to causes of risk; previous studies that document that many U.S. children are seriously at risk; data suggesting that schools are not to blame for most of the risks that confront young people; data collected from teachers and principals; a rationale for understanding students at risk; what schools are doing to help students at risk, including suggestions about how to change those efforts; a perspective on working with students at risk (teaching responsibility); and data collected from people concerned about holding students in school through graduation. Teachers and administrators cannot solve the problems of at-risk students by themselves. The problems will be solved only if society changes in ways that enhance children's lives rather than endanger them. Appendix A describes study problems and procedures. Appendixes B, C, D, E, and F provide narrative descriptions and data tables on which chapter 4 is based ("The Pervasiveness of Risk"). Includes 111 endnotes and 43 data tables. (RLC)

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FINAL REPORT
PHI DELTA KAPPA
STUDY OF STUDENTS AT RISK

VOLUME 1

ED357105

JACK FRYMIE

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FINAL REPORT — PHI DELTA KAPPA STUDY OF STUDENTS AT RISK

VOLUME 1

GROWING UP IS RISKY BUSINESS, AND SCHOOLS ARE NOT TO BLAME

Jack Frymier

with Larry Barber, Ruben Carriedo, William Denton,
Bruce Gansneder, Sharon Johnson-Lewis, and Neville Robertson

Phi Delta Kappa
Bloomington, Indiana
1992

Support for this project was provided by the Ford Foundation, the John D. and Catherine T. MacArthur Foundation, and Phi Delta Kappa International.

Book and Cover Design by
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Edited by
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Library of Congress Catalogue Card No. 92-82586
ISBN 0-87367-730-7
Printed in the United States of America

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PREFACE

For most children, growing up is a wonderful experience and a wonderful time of life. But growing up is risky business for some youngsters – very risky – and schools are not to blame.

This is the report of a study of children at risk; a study of children who hurt, physically or psychologically, and children who have problems – educational problems, personal problems, or social problems. It is also a study of what caused those problems: why the problems developed, where the problems arose, and who or what may have been responsible.

Pinning down causes is a task most researchers approach with reluctance. Specifying causation in human research means moving in the direction of indicating personal responsibility, and researchers are hesitant to take such steps. We are not exceptions to that general rule. What is clear from this research, however, is a negative – schools are not to blame for most of the problems young people in America face today. The culture is to blame. That point needs to be understood.

Schools are a part of the larger culture, of course, but those who want to hold the school responsible for the failure of other institutions (policy makers, courts, executive agencies, welfare agencies, police, universities, families, churches, and businesses) to help young people, must face the facts: schools are not to blame.

Society is responsible. The breakdown of society, the break-up of the family, deterioration of social values, the never-ending barrage of violence and sex on television, inadequate opportunities for employment, decline of personal and institutional ethics, loss of confidence in government, failure to vote, refusal of policy makers to face up to social problems that result from the "freedom" to procure handguns, alcohol, or drugs, and the general legitimization of greed that has characterized our culture in recent years are more to blame for low achievement scores and rising crime among youth than poor teaching or limited curricula or too little homework.

Everybody realizes that the problems are larger than the schools, but many want a scapegoat. They want someone else to blame. Many people talk about a "quick fix," though they know that quick fixes are neither available nor easily created. There are none. The complex and difficult problems that relate to our young people can only be resolved by cultural overhaul.

Recent history has included much

rhetoric but little action that promotes commitment to improving the quality of life for all people, including young people. Instead, efforts seem to be aimed at high visibility, low cost programs that foster the appearance of improvement and change without the substance and process of improvement and change.

Teachers and administrators did not create or cause most of the problems that confront young people today, nor can they solve the problems by themselves. The problems will be solved only if society changes in ways that enhance children's lives rather than endanger them.

Some people even say that we are becoming a decadent society; Americans relish the comforts and conveniences of the post World War II period of economic ascendancy, but many want to "rest on their oars." Some are willing to put their time in, but not enough people are committed to doing things right and doing the right thing.

Many people blame the schools for problems in society. When the Russians launched Sputnik, America's schools were singled out for blame. When the economy slipped, certain people suggested that it was the school's fault. Some have argued that crime, drug abuse, and teenage pregnancy all increased because the school was not doing its job adequately.

Everyone "knows," of course, that schools have not caused all or even most of the problems with which children have to deal. The school does not cause some children to come to school hungry every day. The school did not create conditions that require some children to go home to an empty house every day after school. The school did not cause an increase in the divorce rate or alcohol consumption or parental conflict or adolescent suicide. The school did not promote the inanity of much of television programming today. The school did not push the National Rifle Association's agenda of no restrictions on gun sales and no registration of handguns. Those problems have all resulted from conditions in the home and circumstances in the larger culture.

Educators have to deal with problems that youngsters bring to school each day – and teachers work hard along that line – but teachers and administrators did not create or cause most of the problems that confront young people today, nor can they solve the problems by themselves. The problems will be solved only if society changes in ways that enhance children's lives rather than endanger them.

As this is being written, for example, crime is emerging as a major political issue of the upcoming political campaign, and young people are involved in crime: as victims and as perpetrators. Democrats and Republicans are arguing about who is to blame for the increase in crime.

"We need more and better laws," one group maintains, while the other postures and makes pronouncements about "getting tough on criminals, strict enforcement, and law and order." We have had more laws and more vigorous enforcement during the past 25 years – it was national policy – and that policy has resulted in the highest incarceration rate the nation has ever seen, but the crime rate is higher now than it was before.

Lack of jobs and unrestricted availability of guns are the real problems, but many policy makers and executives do not want to deal with those issues. So the rhetoric continues. We seem to have changed from a pragmatic, problem-solving society to an ideological culture. In such a milieu, schools absorb the brunt of much unwarranted criticism.

Not that schools are doing a perfect job. They are not. It would be wrong for teachers and administrators to use the data in this book either to justify what they are now doing or to give up with a what's-the-use attitude. Educators must develop new and better ways of working so they can be more effective – much more effective – than they have been to date. In practical terms, schools have to change. Doing more of what is already being done is not good enough.

First, we have to understand the problem more precisely, and the problem is complex.

The Final Report – Phi Delta Kappa Study of Students At Risk, Volume 1 (*Growing Up Is Risky Business, And Schools Are Not To Blame*), describes, in narrative form, details of the study, including a brief overview of the methodology and general results of the study. Volume 2 (*Assessing and Predicting Risk Among Students in School*) describes, in graphic and tabular form, details about the methodology and specific results.

Those who are interested in the general results may want to read only the first volume. Those who are interested in the detailed analyses and particular results will find the second volume helpful.

In volume 1, chapter 1 presents the general conclusions of the total study; conclusions should be a good place to begin. Chapter 2 describes the results of one statistical analysis that relates directly to causes of risk. Chapter 3 reviews previous studies that document the reality – many children in America are seriously at risk.

Chapter 4 summarizes the data that first convinced us that schools are not to blame for most of the risks that confront young people. Extended narrative descriptions and tables of the data on which this chapter is based are set forth in appendices B, C, D, E, and F of this volume. Tabular and graphic descriptions of these same data are also included in appendices D and G of volume 2.

Chapters 5 and 6 summarize information collected from teachers and principals.

The next three chapters are speculative; they go beyond the data. Chapter 7 suggests a rationale for understanding students at risk. Chapter 8 examines what schools are doing to help students at risk, including suggestions about how to change those efforts. Chapter 9 outlines a perspective on working with students at risk – teaching responsibility – but one that grew out of our understanding of what risk is and how professionals currently work to help students at risk. Chapter 10 summarizes information collected from people concerned about "holding" students in school through graduation.

Many people have worked on and contributed to this study: teachers and administrators in participating schools, Kappans who collected the data in the 85 communities, and staff members at Phi Delta Kappa headquarters who produced, distributed, and collected materials associated with the study.

In addition, the following persons analyzed the data, wrote reports, and otherwise contributed to this project in various ways: Mary Lickteig, Jill Russell, Neal Grandgenett, Gary Hartzell, Jack McKay, Barbara Robertson, Eileen Williams, Charles Taylor, Barbara Gallagher, Susan Joseph, Andy Russell, Frank Hartranft, and Tom Lorsbach.

Special thanks to members of the Board of Directors of Phi Delta Kappa and to Lowell Rose, Executive Director. Thanks, also, to the Ford Foundation and the John D. and Catherine T. MacArthur Foundation for supporting this investigation. We could not have produced these reports without their assistance.

To all of these people we express our sincere appreciation for all they have done. The project would not have been possible without their efforts and intelligence. We are responsible for the interpretation of data and for these two reports.

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with
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PART ONE

THE BEGINNING AND THE END

1

CONCLUSIONS: A PLACE TO BEGIN

From the moment of conception to the awful finality of death, risk is an aspect of every person's life and being. Most people learn to comprehend and cope with risk in ways that minimize pain and maximize possibilities, but some people fail. They fail at school, they fail at life, or they fail at both. This is a book about young people at risk of failure in America today.

When he was a child, Winston Churchill was at risk. Churchill spent his early youth in boarding schools as a poor student and a worse athlete. Ignored by his parents, bored at school, and isolated by social ineptness, he turned to books, then to the army, after that to reporting war, and finally to politics rather than sex or drugs or crime.[1] After more than 60 years of trying, he finally made it, and he made it big. But he was at risk as a child. Only his nanny loved him; only his nanny cared.

Churchill's story is important because it dramatizes the fact that not all children who are at risk in school will fail at life. Many youngsters will make it, and make it big, but every youngster needs assistance, instruction, care, and love.

Of the 21,706 students studied in this research, only one in five had no risk evident in their lives, one student out of four had three or more risk items evident, and one student out of 10 had five or more risk items operating in his or her life every day. Risk is common, and risk is everywhere.

Except for a few risk areas (pregnancy, drug use, crime), the incidence of risk among young people is evident in a reasonably uniform way among various age groups. Older children are more at risk than younger children, but the differences are not as great as might be expected. Blacks are more at risk than whites, Hispanics are more at risk than Asians, and boys are more at risk than girls, but the differences between blacks and whites are not as great as the differences between boys and girls, so simple generalizations are inaccurate, in the main. Table 1 shows the proportion of students at risk on various items by ethnic background.

We began this study by reviewing published research to identify things that related to or contributed to risk among young people in school. Then we collected information about more than 21,000 students on each of the

Table 1. Comparison of children of different ethnic backgrounds who were at risk on various risk items*

Risk Item N =	White 15,035 %	Black 3,574 %	Hispanic 1,514 %	Native Am. 505 %	Asian 598 %
Suspended from school	5	11	6	8	2
Attempted suicide	1	0	1	3	1
Involved in pregnancy	0	1	1	1	1
Student sold drugs	1	1	0	1	0
Student used drugs	3	2	3	11	2
Family used drugs	3	3	4	14	1
Student used alcohol	5	3	4	16	2
Parent alcoholic	4	3	4	14	1
Student arrested	1	2	1	3	1
Student abused	2	2	2	6	1
Low grades in school	11	22	16	12	5
Failed courses	7	15	15	14	3
Overage in grade	14	24	22	23	15
Retained in grade	12	24	18	21	7
Excessive absences	6	10	8	10	4
Low self-esteem	12	14	15	14	7
Special education	10	10	10	12	5
Low reading scores	7	17	16	10	9
Parent sick last year	4	5	5	11	3
Parent died last year	1	1	1	3	1
Parent lost job last year	4	4	6	5	3
Friend died last year	4	6	5	11	3
Student ill last year	3	4	3	9	4
Sibling died last year	0	1	1	4	1
Father low-level job	15	19	25	26	25
Father not high school graduate	6	9	19	12	11
Mother low-level job	18	25	24	22	26
Mother not high school graduate	6	10	20	13	14
Parents' attitude negative	5	7	6	6	2
Language not English	1	1	41	5	36
Broken home	30	55	43	45	26
Moved frequently	14	19	20	19	21
Changed schools frequently	23	23	23	23	36
Parents divorced last year	6	10	7	8	4

* 480 students did not specify ethnic background

specifics that research indicated related to or contributed to risk. All information was provided by teachers who knew each student well and who had access to each student's records in the school. Following that, we analyzed the data in various ways. This book describes the results of one of those analyses in detail.

All of the students who were at risk on one item – had been abused, for example – were compared with all of the students who were not at risk on that item on each of the other items about which information had been collected. The results? When compared to students who were not at risk on a particular item, about twice as many students at risk on that one item were at risk on each of the other 33 items on which comparisons were made. The differences were dramatic and the pattern was consistent.

Children who hurt, hurt all over. Children who fail, often fail in everything they do. Risk is pervasive. If a student is at risk in one area, that student is very likely to be at risk in many other areas, thus efforts to help may be confounded because other problems are involved.

Examine table 2 carefully. On the first item, for example, it is apparent that almost five times as many students who had excessive absences had been suspended from school as students who had not had excessive absences. Three times as many had attempted suicide, more than three times as many had been involved in a pregnancy, more than four times as many had sold drugs, six times as many had used drugs, three times as many lived in a family in which other family members used drugs, three times as many used alcohol, three times as many had a parent who drank excessively or was an alcoholic, seven times as many had been arrested, and more than twice as many had been physically or sexually abused.

Read through the remaining items described in table 2. In every instance, students who were at risk on one item (had excessive absences from school, for example) were more likely to be at risk on other items when compared with students who were not at risk on the first item. The pattern evident here also showed up in almost every comparison we made, and we made more than 1,100 such comparisons.

We are not going to subject you to that kind of comparative analysis here. However, if you are interested in examining data in detail, the results are all presented in tabular and narrative form in appendices B, C, D, E, and F in volume 1, and in tabular form in appendix D and graphic form in appendix G in volume 2.

Two patterns emerge from a study of these comparisons. First, the general direction of the differences is the same. Second, most of the differences are significant statistically (.001).

More than 98% of the 1,122 comparisons indicated that students at risk on one item were more likely to be at risk on other items than students not at risk on the first item. Further, more than 83% of the differences were significant statistically. Those patterns are important. Most studies with large numbers of subjects report statistically significant results. It is the consistent direction of these results that strikes us as especially important. (See table 3.)

If a youngster was at risk on one item in this study, the odds were overwhelming that he or she was at risk on many other risk items.

Table 2. Comparison of students who had excessive absences with students who did not have excessive absences on various risk items

Risk Item	Excessive Absences	No Excessive Absences
N =	1,497	20,209
	%	%
Suspended from school	24	5
Attempted suicide	3	1
Involved in pregnancy	3	0
Student sold drugs	4	0
Student used drugs	12	2
Family used drugs	10	3
Student used alcohol	12	4
Parent alcoholic	9	3
Student arrested	7	1
Student abused	5	2
Low grades in school	47	11
Failed courses	39	7
Overage in grade	37	15
Retained in grade	34	13
Low self-esteem	31	11
Referred special education	15	9
Low reading scores	19	9
Parent sick last year	6	4
Parent died last year	1	1
Parent lost job last year	8	4
Friend died last year	6	5
Student ill last year	8	3
Sibling died last year	1	1
Father low-level job	24	16
Father not high school graduate	14	7
Mother low-level job	29	19
Mother not high school graduate	17	8
Parents' attitude negative	14	4
Language not English	7	5
Broken home	51	33
Moved frequently	22	15
Changed schools frequently	26	23
Parents divorced last year	12	7

Table 3. Summary chart: number of items that discriminated students at risk from those not at risk

Separated on Item	In Direction Hypothesized	Number Significant*
Suspended from school	33	31
Attempted suicide	31	23
Involved in pregnancy	31	27
Student sold drugs	33	28
Student used drugs	33	28
Family used drugs	33	31
Student used alcohol	33	27
Parent alcoholic	33	31
Student arrested	33	31
Student abused	33	31
Low grades in school	32	29
Failed courses	33	30
Overage in grade	33	31
Retained in grade	33	33
Excessive absences	33	29
Low self-esteem	33	31
Referred special education	33	25
Low reading scores	32	25
Parent sick last year	33	28
Parent died last year	31	15
Parent lost job last year	33	33
Friend died last year	32	27
Student ill last year	32	28
Sibling died last year	31	18
Father low-level job	29	23
Father not high school graduate	33	28
Mother low-level job	31	23
Mother not high school graduate	33	31
Parents' attitude negative	33	28
Language not English	30	21
Broken home	32	30
Moved frequently	33	31
Changed schools frequently	29	17
Parents divorced last year	32	28

*Significant beyond .001 level

In other words, if a youngster was at risk on one item in this study, the odds were overwhelming that he or she was at risk on many other risk items. In the next chapter, we present a brief summary of a different kind of statistical analysis that relates more directly to the causes of risk.

2

WHAT CAUSES RISK?

In the previous chapter we outlined the general conclusion reached in this study – growing up is risky business, and schools are not to blame. That conclusion was derived from analyses of data summarized in chapter 4 (also in tabular and narrative form in appendices B, C, D, E, and F in this volume and in tabular and graphic form in appendices D and G in volume 2).

After we had studied those data, it occurred to us that further statistical analyses might corroborate the conclusion in another way. This chapter summarizes the results of those additional analyses, after a review of earlier work.

We began this research with an assumption: children are at risk if they are likely to fail at school or fail at life. Following clarification of that assumption, we reviewed previous studies and identified 45 things other researchers had suggested contribute to, correlate with, or cause risk among young people in school. We then developed a protocol instrument that defined each of those 45 things in operational terms and used that 45-item instrument to collect data on more than 21,000 students in 276 schools (see appendices A and B in volume 2 for details of that process).

Factor analyses were accomplished on the data collected about these students, and five factors emerged: personal pain, academic failure, family tragedy, family socioeconomic situation, and family instability. Eleven of the 45 items were eliminated in this process, leaving a five factor, 34-item scale.

Factor analysis identifies relationships that exist among things, and the 34 items that clustered together in the five factors specified above constituted five sub-scales for determining various aspects of risk among young people in school. In the next section, the items that comprised each of the five factors are listed.

FIVE FACTORS DESCRIBED

1. Personal Pain

The personal pain factor consisted of 10 items that correlated highly with each other: student had been suspended from school, student had attempted suicide, student had been involved in a pregnancy, student sold drugs, student used drugs, other family members used drugs, student used alcohol, parent drank excessively or was an alcoholic, student had been arrested, and student had been physically or sexually abused.

2. Academic Failure

The academic failure factor consisted of eight items that correlated highly with each other: student got low grades in school, student failed courses in school, student was overage in grade, student had been retained in grade, student had excessive absences, student had low sense of self-esteem, student had been referred to special education, and student had low scores on standardized tests in reading.

3. Family Tragedy

The family tragedy factor consisted of six items that correlated highly with each other: a parent was sick last year, a parent died last year, a parent lost his or her job last year, a friend died last year, the student was seriously ill or in an accident last year, and a sibling died last year.

4. Family Socioeconomic Situation

Family socioeconomic situation factor consisted of six items that correlated highly with each other: student's father was unemployed or held an unskilled laborer's job, student's father had not graduated from high school, student's mother was unemployed or held an unskilled laborer's job, student's mother had not graduated from high school, parents had a negative attitude toward education, and English was not the language spoken in the home.

5. Family Instability

The family instability factor consisted of four items that correlated highly with each other: student did not live with real mother and real father, student moved frequently, student changed schools frequently, and the student's parents divorced last year.

Most of the data in this study involved information collected about students on the 34 items listed here as elements of the five factors described. Eventually, these 34 items were reduced to a 24-item scale by collapsing certain items together (see appendix C, volume 2), but information about all 34 items is reported here.

One purpose of factor analysis is to reduce complex data sets to a manageable level as a way of furthering understanding. In this research, a 45-item scale was reduced to 34 items that were organized around five factors. Once the relationship of each item to a factor was determined, scaled scores were developed for each student on each of the five factors. Following that, regression analysis was accomplished in an attempt to understand relationships that might contribute to or cause risk among young people in school.

THE LOGIC OF CAUSATION

Does it rain because the corn grows, or does the corn grow because it rains? On the face of it, that is a silly question. The corn grows because it rains, obviously, not the other way around. But things are not always so obvious.

What is implicit in the question posed above are the relationships between three variables: amount of rain, corn growth, and time. Relationships between variables can be expressed statistically in terms of correlation coefficients, but everyone knows that correlation does not necessarily mean causation. And that is correct. Many things correlate with each other that are not related in causal ways.

During the past 20 years, for example, there has been an inverse relationship (negative correlation) between consumption of diet cola and the birth rate in America, but no one would argue that increased consumption of diet cola caused a decline in the birth rate among American women. One cannot infer causation from correlation.

On the other hand, cause-effect relationships do exist, and when they exist, correlation is evident. Always. There is no such thing as cause-effect relationships without statistical correlation. The basic purpose of research – the heart of any research endeavor – is to identify and understand cause-and-effect relationships, and correlation is a statistical technique that researchers often use to identify and understand cause. The fact that correlation does not necessarily mean causation does not imply that correlation never indicates causation. It may. And when things are related causally, correlation will be evident.

How can we separate those things which are causally related from those that are not causally related? We do it by examining the logic of the relationships and the assumptions that are involved, including considerations of time. Suppose we explore the logic of some of the relationships evident among the five factors identified in this research project, including the assumptions associated with those relationships and time.

For example, could personal pain, as it has been defined in this study, cause academic failure? That is, if a student had been suspended from school, attempted suicide, been involved in a pregnancy, sold drugs, used drugs, and been abused, could those experiences lead to or cause that student to get low grades in school, fail courses, be retained in grade, have excessive absences, and have low reading scores? Logic suggests that that could be a very real possibility.

Might the opposite occur? For example, if a student got low grades in school, failed courses, was retained in grade, had excessive absences, and got low reading scores, could those things cause a student to be suspended from school, attempt suicide, become involved in a pregnancy, sell drugs, use drugs, or be physically or sexually abused? Maybe, but the logic is less persuasive. If a child got low grades in school and failed courses, that might lead a parent to abuse a child physically, or it might drive a youngster to attempt suicide or become sexually active, but the argument is less persuasive than in the other case.

Consider another illustration. If a student's father was unemployed and had not finished high school, if that student's mother was also unemployed and had not finished high school, and if those parents' attitudes toward education were negative, could those things contribute to or cause a student to get low grades in school, fail courses, be retained in grade, be referred to special education, and get low scores in reading? Probably. The relationship seems plausible.

Suppose we turn the logic around, however, and ask if a student got low grades in school, failed courses, was retained in grade, was referred to special education, and got low scores in reading, could that cause the student's father to be unemployed or not finish high school, the student's mother to be unemployed or not finish high school, and for those parents to develop negative attitudes toward education? The answer is clearly no. By no stretch of the imagination could one argue logically that academic failure caused poor family socioeconomic situation.

Academic failure is caused by personal pain, family tragedy, family socioeconomic situation, and family instability.

What is being discussed, of course, is the possibility of specifying scores on the various factors as either dependent or independent variables. Scores on dependent variables might be caused by or be a function of the influence of things measured on the independent variables. Given this kind of analysis, we concluded, theoretically, that academic failure might be caused by personal pain, family tragedy, family socioeconomic situation, and family instability. In other words, academic failure ought to be considered a dependent variable in any multi-variate analysis that tried to determine the extent to which the other (independent) variables contributed to or caused academic failure to exist. In the same way, we concluded that the three family factors might contribute to or cause personal pain, but it would be unreasonable to try to turn that argument around.

Accordingly, we hypothesized that multiple regression would indicate a statistically significant relationship among the scores on the five factors (personal pain, family tragedy, family socioeconomic situation, family instability, and academic failure), if academic failure was posited as a dependent variable.

We further hypothesized that regression analysis would indicate a statistically significant relationship among the scores on the four factors (family tragedy, family socioeconomic situation, family instability, and personal pain), if personal pain was posited as a dependent variable.

Finally, we hypothesized that regression analysis would indicate a statistically significant relationship among the scores on the five risk factors and what teachers do to help students who are at risk (the 13 instructional strategies that we have labeled school effort).

School Effort Instructional Strategies

- special teachers
- smaller classes
- computerized instruction
- referral to special education
- lower track courses or groupings
- individualized instruction
- flexible scheduling
- tutoring
- extra homework
- extra opportunities for parental involvement
- extra instruction in basic skills
- referral to psychologist or other special services
- special instructional materials

All analyses were accomplished by grade level (for fourth-, seventh-, and 10th-grade students).

CAN WE TEASE OUT THE CAUSES OF RISK?

The details of these multiple-regression analyses are presented in tables 63 through 65, appendix J, and tables 66 through 99, appendix K, volume 2. All of the values were significant statistically (.001). We have summarized the general results in this chapter.

Academic failure is caused by personal pain, family tragedy, family socioeconomic situation, and family instability. Students who experience academic failure tend to experience more personal pain and to come from families with higher incidence of family tragedy, lower family socioeconomic levels, and less family stability.

Personal pain is caused by family tragedy, family socioeconomic situation, and family instability. Students who experience personal pain tend to come from families in which there are more instances of family tragedy, lower socioeconomic levels, and less family stability.

Teachers' attempts to help students in school are a function of the degree of risk evident: students who are more at risk get more "school effort" than students who are less at risk. Consciously or unconsciously, teachers employ a greater number and more varied instructional strategies with students who are more at risk than with students who are less at risk. (Refer to chapter 5, The View from the Classroom, for more detailed analysis.)

A cautious interpretation of these data might suggest that we not use the word "cause" as we have used it here. Maybe we have gone too far, but we cannot, in good conscience, back away from what seems irrefutable, both logically and statistically: growing up is risky business, and schools are not to blame.

Consciously or unconsciously, teachers employ a greater number and more varied instructional strategies with students who are more at risk than with students who are less at risk.

3

GROWING UP IS RISKY BUSINESS

We began this project with an assumption: children are at risk if they are likely to drop out of school or drop out of life. A child who gets all Fs on his or her report card is likely to drop out of school. A young person who has attempted suicide is likely to drop out of life.

People in America think that going to school and finishing high school are important. A part of the national psyche is rooted in our belief in the importance of providing educational opportunities to everyone, and our insistence that the young, at least, take advantage of those opportunities.

Some nations, Israel and Japan, for example, think that education is essential to survival. Surrounded by hostile peoples or isolated from natural resources, such nations have developed national policies and educational practices to foster the development of natural talents of their people. These nations are committed to creating intelligence and intelligent behavior, in effect. Providing opportunities is not enough.

During the past quarter century, the accountability movement in the United States has nudged our nation closer to such a national policy. Many people argue that schools must be more effective; students must learn more, better, faster, and retain it longer than students have before. Simply making schooling available — providing educational opportunities — is insufficient, they say.

Compulsory education is one aspect of moving beyond the "opportunity" concept. Requiring children to go to school is not a new idea. Babylon's Code of Hammurabi established such requirements before 2000 BC; in England the Poor Law of 1601 required pauper children to be taught; and in 1907 Japan became the first Asian country to establish such a code. In the United States, Massachusetts adopted compulsory education as state policy in 1852, and compulsory education requirements were enacted in all states by 1918.[2] President Bush and the nation's governors set forth six educational goals for the nation in 1989, and Goal 2 was to increase the high school graduation rate to 90% by the year 2000.

Compulsory education requirements and the press for high school graduation are based on diverse cultural concerns: the importance of an educated citizenry in a democracy, the desire to keep young people out of the labor force for their own protection and development and for others' welfare, and the importance of education and skills to economic development and prosperity.

The likelihood that a youngster will drop out of school must be measured against these concerns. Educators believe in the importance of education – that is one reason they are in the profession – but almost everyone else also thinks that education is important. And in America, education is equated with years of formal schooling.

More than 80% of [American] young people finish high school today.

A hundred years ago, fewer than 10% of the people in America finished high school. More than 80% of young people finish high school today. In one sense, our nation is doing better to help students finish school than it has ever done before. Political and economic circumstances throughout the world and rising expectations, however, are forcing Americans to re-think the concept of educational opportunity and recast their hopes and beliefs into higher levels of aspiration and ever higher levels of achievement. In practical terms, those hopes and beliefs crystallize in American culture as fewer dropouts and more graduates.

Why do young people leave school before graduation? That question has been a staple in the educational research community for many years. In the next section, some recent research reports about school dropouts are reviewed.

What follows is not an exhaustive or definitive review of the thousands of studies that have been accomplished during the last half century or so; it is illustrative.

DROPPING OUT OF SCHOOL

Rumberger reviewed more than 50 studies and analyzed four facets of the dropout problem: incidence, causes, individual and social consequences, and solutions. About incidence, he said:

> *In fact, no one knows what the high school dropout rate really is in the United States. That is because there is no consensus definition of a high school dropout, nor is there a standard method for computing the dropout rate.*[3]

Several causes were specified: socioeconomic status, influence of peers, economic factors, self-esteem, and poor achievement, among others. He also maintained that "little attention has been given to the influences of the schools themselves – their organization, leadership, teachers – on students' decisions to drop out." Rumberger goes on to point out that

> *there is no "typical" dropout. A poor, urban black may drop out of school because he is doing badly, his school is understaffed, and he believes his economic prospects are poor whether or not he finishes high school. A suburban, middle-class white may drop out of school because he is bored although doing reasonably well in school, he wants to spend some time with his friends, and he knows he can finish school later on at the community college.*[4]

Given these analyses, Rumberger suggests intervention programs should include the following elements: different programs for different types of dropouts, educational and noneducational services, accurate identification of students at risk of dropping out of school, and programs designed for early prevention, late prevention, and recovery.[5]

Barber and McClellan analyzed dropout reporting practices of 17 large school districts and found variation in classification codes and terminology. They suggested that "policy makers at the state and district levels have failed to achieve consensus about the definition of a school dropout."[6] MacMillan, et al[7] and Morrow[8] explored the conceptual and methodological difficulties in defining the term "dropout" and suggested parameters (time frame, grade levels, baseline population) that might help educators standardize the definition. Thus far, none of these suggestions has been adopted or imposed, so ambiguity about the issue continues.

Bryk and Thum examined the effects of high school organization on dropping out of school. Relating absenteeism with dropping out, they reported:

> *Absenteeism is less prevalent in schools where faculty are interested in and engaged with students and where there is an emphasis on academic pursuits. An orderly social environment is another important condition.*[9]

Further, student attendance was better in smaller schools and where the exercise of adult authority was perceived by students to be fair and effective.

Finn reviewed more than 90 studies about behaviors or characteristics associated with early school withdrawal. The synthesis was aimed at clarifying and relating this research to two theoretical models that might help professionals understand why students drop out of school: the frustration/self-esteem model, and the participation-identification model.[10]

He concluded that the frustration/self-esteem model gives limited guidance to educators interested in preventing failure or raising esteem levels. Participation-identification concepts, on the other hand, encourage educators to focus on students' emotional and physical involvement with, rather than withdrawal from, school, but suggestions for intervention to assure participation and identification (positive teacher attitudes, teaching practices that involve students in the process, a diversified curriculum, smaller schools, flexible school rules, appropriate evaluation structures, and positions of responsibility for students) have often been made with little or no supporting evidence.[11]

Carson, Huelskamp, and Woodall looked at dropout rates from various perspectives over time. They pointed out that "prior to the mid-1980s, dropout rates were not carefully calculated in many districts, and there were no measures consistent from district to district." Working with data from the Census Bureau (number of high school graduates in a particular year divided by the number of 17-year-olds in that year), they concluded that graduation rates had increased from about 2% in 1870 to approximately 75% in 1965, and the rate remained fairly steady from 1965 to 1990. When data about the number of students who complete the GED examination is included (and most of the students who receive the GED go on to post-secondary studies), the number of high school graduates approximates 85%.[12]

Toles, Schultz, and Rice reported a study of more than 33,000 students in 63 Chicago high schools that predicted dropout rates for each school. Actual dropout rates were compared to predicted dropout rates, and certain schools were identified that had higher dropout rates than expected, while other schools were identified that had lower dropout rates than expected. The findings suggested that school characteristics (curriculum and attendance boundaries, for example) and student attributes both affected holding power.[13]

Wehlage and Rutter reviewed research literature from four national studies and confirmed that low socioeconomic status was associated with dropping out of school. Further analyses of data from the High School and Beyond study led them to conclude that some schools probably contributed to students dropping out of school in the sense that teacher interest in students was not positive, and school discipline was seen as both ineffective and unfair.[14]

Characteristics of students who drop out of school were reported by Hess and Greer,[15] Turner and Abalos,[16] Hammack,[17] Gastright,[18] Fine,[19] Ekstrom, et al,[20] and Williams,[21] and the general findings were that dropouts had been retained in grade or were overage, involved in a pregnancy, worked more than 20 hours outside of school, had low reading test scores, had parents who had not finished high school, and had lower self-concepts than students who had not dropped out of school.

Glazer explored the economic consequences of dropping out of school for students, and those consequences were dire:

> *In 1986, for example, at least one out of five male dropouts was unemployed, compared with one of 10 male high school graduates. An extremely high number of male dropouts aged 20 to 24 did not work at all that year: 17 percent of the dropouts in this age category did not hold a job in 1986, compared with 7 percent of the high school graduates. This gap was particularly pronounced among blacks: 40 percent of black dropouts aged 20 to 24 did not work in 1986 compared with 16 percent of black graduates.*[22]

Stephenson followed 18,829 eighth-graders in Dade County, Florida for 4½ years. He reported that 48% graduated, 17% transferred out of the district, 6% were still in school, and 29% had dropped out of school. Graduation rates were highest for Asians (67%) and lowest for blacks (44%), with whites (52%) and Hispanics (47%) in between. He also reported that more than half the dropouts had been retained in grade one or more times.[23]

Poulis described a study of school leavers in Detroit in which structured interviews were conducted with students who dropped out of school. The most common reasons cited by students for leaving school were boredom in school and the desire for employment.[24]

Kolstad and Owings, working with the High School and Beyond database, reported that 38% of students who dropped out of school completed their diploma requirements within two years of those who remained in school to graduate. The earlier students dropped out, the less likely they were to return to school.[25]

DROPPING OUT OF LIFE

Young people who use drugs or alcohol, engage in criminal activity, or attempt suicide are clearly flirting with factors that are dangerous and may lead to injury or even death. Children who grow up in situations in which violence is present or love and attention are lacking are also jeopardized.

If a child is born out-of-wedlock, for example, that complicates a youngster's start in life, and the proportion of children born to unmarried women in the United States has increased steadily during the last quarter century. In 1960, 2% of white women and 22% of black women who gave birth were not married; by 1985, those figures had increased to 14% of white women and 51% of black women.[26]

Young people who use alcohol increase the probability of death and disease in their lives, yet 65% of youth have used alcohol, and 27% are current users.[27]

Murder, forcible rape, and aggravated assault are always higher in urban areas than in smaller communities, but America is steadily becoming more urban, so increasing numbers of children experience such problems in their daily lives.[28] In fact, the United States has the highest homicide rate among developed nations; only Mexico, Puerto Rico, and Northern Ireland have higher rates,[29] and the number of homicides in the United States has increased steadily since 1960.[30] Further, death rates from homicide among blacks are almost six times as high as death rates from homicides among whites,[31] so the relationship of homicide to race exacerbates the other problems associated with minority status.

In 1960, 2% of males and 3% of females over 18 years of age were divorced; today 7% of males and 9% of females over 18 are divorced.[32] In practical terms, that means that the number of children who grow up in broken homes has increased steadily during the past 30 years.[33]

In 1985, for instance, 74% of children under the age of 18 were living with both parents, 21% were living with their mother only, 3% with their father only, and the remaining with neither parent.[34]

The number of child maltreatment cases reported in the United States has tripled since 1976 (from 1% to more than 3%, and though some of that increase is undoubtedly the result of better reporting practices, the number of children abused continues to go up).[35]

Legal abortions among white women increased from 12% in 1972 to 21% in 1987; among blacks and women of other racial or ethnic groups, abortions increased from 22% in 1972 to 56% in 1987.[36]

Suicides among children 10 to 14 years of age more than doubled (from .6% to 1.4%) from 1970 to 1989,[37] and though the proportion is small, every death of a child from suicide is needless. In fact, suicide is the second major cause of death among youth, next to accidents.

Deaths caused by AIDS among children under 12 years of age increased from 13 cases in 1982 to 287 cases in

1989.[38] Those figures will continue to increase.

Schorr relates the data about risk factors to poverty this way:

> *The close association between poverty and risk holds for every component of risk – from premature birth to poor health and nutrition, from failure to develop warm, secure, trusting relationships in early life to child abuse, from family stress and chaos to failure to master school skills. Persistent and concentrated poverty virtually guarantee the presence of a vast collection of risk factors and their continuing destructive impact over time. The converse is also true. Middle class status is an effective buffer against a wide variety of risk factors.*[39]

Schorr argues that we already know enough about what creates "rotten outcomes" among adolescents; the challenge now is to "build a strong network of preventive programs and policies, by governmental as well as private agencies."[40]

Zinmeister approaches the problem from a different perspective: children need order. He states:

> *Crime does not wash over all Americans equally. It especially terrorizes the weak and most vulnerable among us. Three-quarters of America's 64 million children live in metropolitan areas, a fifth live in low-income households, at least a tenth come home after school to a house containing no adult, and all are physically immature and incompletely formed in character. These are the people who suffer most when law and order decay. Children need order. Aside from love and sustenance, there is nothing they need more than order.*[41]

Zenmeister continues:

> *In May of 1987 the mayor of Washington, D.C., visited an eighth-grade class for gifted students at a public school in a poor neighborhood. The mayor posed a question. "How many of you know somebody who's been killed?" There were nineteen students in the class. Fourteen hands went up.*[42]
>
> *Homicide is now the leading cause of death among children in many American inner cities, and about half the assailants are other youths.*[43]

In another area, Petzel and Riddle noted a specific trend in their study of adolescent suicide: family conflict is a leading precipitant to suicidal behavior.[44]

Ray and Johnson reviewed 27 studies of adolescent suicide, and identified three primary causes: depression, loss of parent, and alienation from the family.[45] Stillion, McDowell, and Hay studied secondary and college students' attitudes toward suicide and reported that adolescent females sympathized more with reasons for suicide than males, and that students with higher cognitive abilities sympathized less with reasons for suicide than students with lower cognitive abilities.[46] Simmons and Murphy reported differences in suicide ideation between male and female adolescents,[47] as did Wellman and Wellman.[48]

Harlow, Newcomb, and Bentler studied 722 young people in Los Angeles County with five measures in an attempt to build a theoretical model regarding purpose in life. They reported young women and men were generally characterized by relatively low levels of depression, a positive sense of purpose in life, small degree of suicide ideation, moderate alcohol consumption, and little hard drug use.[49]

In another area, Thorne and DeBlassie reviewed research regarding adolescent use of drugs. They reported that alcohol, tobacco, and marijuana had been used by one-third to two-thirds of the adolescents, although only about one-sixth to one-third regularly used such drugs. They concluded family influences affect drug use, and

> *teenagers with strong social bonds to home and school are not as likely to be substance abusers as those with weaker bonds. Strong peer bonds seem to enhance use.*[50]

Hampton and Newberger analyzed data drawn from the National Study of the Incidence and Severity of Child Abuse and Neglect to determine the incidence of child abuse, and they reported that "about 652,000 are estimated to have met the operational definitions of abuse and neglect during the study year." They also noted that socioeconomic factors affected reporting (physicians reported more instances of child abuse among families from lower social strata than from their own social level).[51]

Martin and Walters reviewed case records of 489 substantiated cases of child abuse and neglect and reported that parent characteristics rather than child or environmental factors were the best predictors of abandonment, and family interaction was the best predictor in physical abuse cases.[52]

Herrenkohl and others studied almost 3,000 instances of child maltreatment that occurred in 328 families over a 10-year period in eastern Pennsylvania. Their concern: "How do the circumstances of abuse and nonabuse incidents differ?" They concluded that if a child's behavior frustrated the adult, physical abuse was more likely. Conflict between adults was more likely to lead to emotional cruelty to children.[53]

Vander Mey and Neff reviewed more than 80 studies of adult-child incest. They reported that 75% of all sexual assaults of females under 18 were perpetrated by family members or acquaintances, and on occasions, the mother was collusive ("passively suspects or knows about the incest and/or relinquishes her role of wife to the daughter, thus inducing incest through role swapping with the daughter"). Oldest girls were almost always the first victims of incest in their families, with significant long-term effects for the girls.[54]

School administrators rated alcohol and drug abuse as a major school problem, second only to absenteeism.[55] In a study of more than 500 college-age youth, Samson, Maxwell, and Doyle reported that more males than females found the first intoxication experience pleasant, and males regularly drank more drinks than females.[56] Kwakman and others studied 161 adolescents and concluded that "the need to facilitate social contact makes [some] youngsters prone to develop damaging drinking habits."[57] Workman and Beer studied 123 high school students in Kansas and reported that "boys had higher mean alcohol-dependency scores than girls" and "depression scores correlated significantly and positively with alcohol dependency."[58] Mayer reported significant personality differences between abstainers, moderate drinkers, and misusers in a study of 347 students in Chicago.[59]

The logic of relationships among youth problems is one way — out-of-school problems affect in-school problems, not the other way around.

In a study of teenage pregnancy in six countries, Jones and others reported that "the abortion rate alone in the United States is about as high as, or higher than, the overall teenage pregnancy rate in any of the other countries" (Canada, England, France, the Netherlands, and Sweden). They concluded:

> *Among the most striking of the observations common to the four European countries included in the six-country study is the degree to which the governments of those countries, whatever their political persuasion, have demonstrated the clear-cut will to reduce levels of teenage pregnancy. Pregnancy, rather than adolescent sexual activity itself, is identified as the major problem.*[60]

Robbins, Kaplan, and Martin studied more than 2,100 seventh-grade students and reported that "school stress emerges as a relatively strong predictor of premarital pregnancy in adolescence."[61]

Scott studied 277 school-age mothers and reported that love is "a major but not dominant factor motivating teenagers to initiate sexual activity; curiosity about the pleasure of sex is almost as important."[62] Ireson questioned 161 girls (average age 16.5 years) and reported that "pregnant teens have lower educational expectations" than peers with negative pregnancy tests, and "their occupational and educational expectations and their school grades are relatively low."[63]

Olson and Worobey compared teenagers' relationships with their mothers, and "pregnant respondents did perceive love, attention, and interdependence at a significantly lower level than did the non-pregnant comparison group."[64]

SUMMARY

Growing up is risky business. Abuse, drugs, alcohol, family difficulties, crime, and possibilities of pregnancy confront young people as well as problems associated with going to school: attendance, motivation, achievement, graduation. In general, the logic of relationships among youth problems is one way – out-of-school problems affect in-school problems, not the other way around.

In the next chapter we will summarize the results obtained in the present study. These analyses corroborate the generalizations reported here from previous research.

PART TWO

THE RESULTS

4

THE PERVASIVENESS OF RISK

Heavy cigarette smokers are at risk of developing lung cancer. People who drink and drive are at risk of having an automobile accident. People who eat foods high in cholesterol and fat are at risk of heart disease. Young people who use drugs or alcohol, live in difficult home situations, or skip school are at risk of dropping out of school or dropping out of life.

One purpose of this research project was to determine the nature and degree of risk evident among young people in school. A major finding was that when risk is evident, it tends to be pervasive within individual children. A young person at risk in one area is likely to be at risk in other areas.

Previous chapters described the general conclusions we reached after studying information about 21,706 young people provided by teachers and counselors in 276 schools. That information included detailed data regarding 45 risk items (used drugs, failed courses, parent was alcoholic, and so forth) that previous research indicated were related to risk. In this chapter we will summarize a major finding of the study by providing illustrative data from 1,122 analyses that were accomplished and point to more detailed results elsewhere in this book and in volume 2.

The approach we used was simple. First, we reduced the number of risk items from 45 to 34 by eliminating certain items on the basis of logical and empirical considerations. Second, we separated students known to differ on a given risk item into two groups. One group included all of the students at risk on that item; the other group included all of the students not at risk on that item. Third, we compared these two groups on each of the other 33 risk items on which we had information to determine the number of students in each group who were at risk on those items. Fourth, we noted which of the groups had the largest proportion of students at risk on each of the 33 items. Fifth, we computed the statistical significance of the difference between these two groups for each of the 33 risk items on which they were compared. Finally, we repeated this entire process for each of the 34 items on which we had data about each student. These processes produced 1,122 statistical comparisons (34 × 33 = 1,122).

The complete results of these analyses are reported in three ways. Tabular and narrative comparisons are included in this volume as appendices B, C, D, E, and F. Numerical comparisons are included as appendix D of volume 2. Graphic comparisons are included as appendix G of volume 2.

We urge you to study these comparisons carefully. We have taken most of the technical information out of the main body of this report to make it more readable, but the major finding – risk is pervasive within individual children – is rooted in the comparisons that are reported in detail, as described above. We encourage you to examine these data in whatever form you feel most comfortable with: words, tables, or charts.

Recall that factor analysis resulted in five factors:

- personal pain
- academic failure
- family tragedy
- family socioeconomic situation
- family instability

Each factor included several of the 34 risk items. In the sections that follow, results of the comparisons of students at risk with students not at risk are summarized by risk factors, and one short table illustrates the findings for each factor.

COMPARISON ON PERSONAL PAIN ITEMS

There were 10 items that comprised the personal pain factor:

- suspended from school
- attempted suicide
- involved in a pregnancy
- student sold drugs
- student used drugs
- family used drugs
- student used alcohol
- parent was an alcoholic
- student arrested
- student abused

In all, 330 comparisons were accomplished, according to the logic described above (10 × 33 = 330).

To illustrate some of the 330 comparisons that were made, table 4 compares students who had been arrested with students who had not been arrested on five other risk items. For complete details, see appendix D and ap-

Table 4. Comparison of students who were arrested with students who were not arrested on various risk items

Risk Item	N =	Arrested 280 %	Not Arrested 21,426 %	Chi Square
Attempted suicide		9	1	232.42*
Student abused		12	2	163.08*
Retained in grade		37	14	121.10*
Parent lost job last year		14	4	67.57*
Language not English		11	5	23.00*

*Significant beyond .001 level

pendix G in volume 2, *Assessing and Predicting Risk Among Students in School*, and appendix B in this book.

Note in the illustrative data in table 4 that nine times as many students who had been arrested had attempted suicide as students who had not been arrested, six times as many had been physically or sexually abused, more than twice as many had been retained in grade, three times as many had a parent who lost his or her job last year, and more than twice as many lived in a home in which English was not spoken.

The total data set indicates that 98% of the 330 comparisons on the personal pain items were in the same direction: students at risk on one item (e.g., arrested) were more at risk on other items than students who were not at risk on that same item. Further, 87% of the differences were significant statistically (.001). Students who were at risk on one item were about twice as likely to be at risk on other items as students who were not at risk on the first item. Risk tends to be pervasive within each child at risk.

Note also that only one of the personal pain items is under the direct influence of the school: suspension from school. Educators have almost no opportunities to affect whether a student attempts suicide, becomes involved in a pregnancy, sells drugs, uses drugs, lives in a family in which other family members use drugs, uses alcohol, has a parent who is alcoholic, gets arrested, or is physically or sexually abused.

Youngsters at risk because of these things are beyond the purview of the school. Because students who are afflicted with such risks usually come to school, teachers and counselors try to provide assistance, information, counseling, support, and referral services, but educators are not responsible for such problems. These are social problems, beyond the sphere of influence of the school. The school is not to blame for students at risk in the area of personal pain.

COMPARISON ON ACADEMIC FAILURE ITEMS

There were eight items that comprised the academic failure factor:

- low grades in school
- failed courses
- overage in grade
- retained in grade
- excessive absences
- low self-esteem
- referred to special education
- low reading scores

In all, 264 comparisons were accomplished (8 × 33 = 264).

To illustrate some of the 264 comparisons that were made, table 5 compares students who had been retained in grade with students who had not been retained in grade on five other risk items. For complete details, see appendix D and appendix G in volume 2 and appendix C in this volume.

Note in these illustrative data that three times as many students who had been retained in grade used drugs as students who had not been retained in grade, more than three times as many had low grades in school, twice as many had a friend who died last year, almost three times as many had fathers who had not finished high school, and almost twice as many did not live with their real mother and real father.

The total data set indicates that 99% of the comparisons were in the same direction: students at risk on one item of the academic failure factor were more at risk on other items than students who were not at risk on the academic failure factor item. Further, in 88% of those comparisons, the differences were significant statistically (.001).

The pattern of differences depicted here, much like the pattern described earlier regarding personal pain factor items, suggests that students at risk on one item were about twice as likely to be at risk on other items as students not at risk on the comparison item. Again, risks were related, even though they were specific.

All of the risk items analyzed in this section are under the direct influence of the school. Schools can make a difference. They can exert some influence on these problems, but schools do not have the only influence or complete control. In terms of cause and effect, for example, it is obvious that academic failure risk items might be affected by or caused by other factor items, but it could not be the other way around. That is, parental divorce might cause or contribute to low grades in school, but low grades in school would not contribute to or cause parents to divorce. Also, parental unemployment or not speaking English in the home might lead to or cause a child to be retained in grade, but being retained in grade would not cause a parent to be unemployed or English not to be the language spoken in the home.

COMPARISON ON FAMILY TRAGEDY FACTOR ITEMS

There were six items that comprised the family tragedy factor:

- parent sick last year
- parent died last year
- parent lost job last year
- friend died last year
- student ill last year
- sibling died last year

In all, 198 comparisons were accomplished (6 × 33 = 198).

Table 5. Comparison of students who were retained in grade with students who were not retained on various risk items

Risk Item	N =	Retained 3,100 %	Not Retained 18,606 %	Chi Square
Student used drugs		7	2	184.55*
Low grades in school		36	10	1617.51*
Friend died last year		8	4	67.15*
Father not high school graduate		17	6	410.43*
Broken home		51	32	421.17*

*Significant beyond .001 level

To illustrate some of the 198 comparisons that were made, table 6 compares students whose parent lost a job last year with students whose parent did not lose a job on five other risk items. For complete details, see appendix D and appendix G in volume 2 and appendix D in this book.

Note in the illustrative data in table 6 that twice as many students whose parent lost a job last year were involved in a pregnancy as students whose parent did not lose a job, five times as many had an alcoholic parent, almost twice as many had excessive absences from school, twice as many had parents whose attitudes toward education were negative, and twice as many had moved frequently.

The total data set indicates that 96% of the 198 comparisons on the family tragedy items were in the same direction: students at risk on one item (parent lost a job last year, for example) were more at risk on other items than students who were not at risk on that same item. Further, 75% of the comparisons were significant statistically (001). The pattern suggests, as before, that students at risk on one item were about twice as likely to be at risk on other items as students who were not at risk on that same item.

Again, none of the family tragedy items are under the influence of the school. Teachers and administrators have no opportunity to affect family health or employment, for example, but a child who comes to school from a family afflicted with such difficulties is affected.

These are family problems, and though problems in school are often rooted in family problems, most people would maintain that educators can not and should not do anything about those home situations. Starkly stated, efforts by teachers or administrators to intervene would not be welcomed by students or parents.

COMPARISON ON SOCIOECONOMIC SITUATION FACTOR ITEMS

There were six items that comprised the family socioeconomic situation factor:

Table 6. Comparison of students whose parent lost a job last year with students whose parent did not lose a job on various risk items

Risk Item	N =	Job Lost 869 %	Job Not Lost 20,837 %	Chi Square
Involved in pregnancy		2	1	35.86*
Parent alcoholic		15	3	362.55*
Excessive absences		13	7	50.61*
Parents' attitude negative		11	5	66.46*
Moved frequently		35	15	243.98*

*Significant beyond .001 level

- father was unemployed or held a low-level job
- father had not graduated from high school
- mother was unemployed or held a low-level job
- mother had not graduated from high school
- parents' attitude toward education was negative
- English was not the language spoken in the home

In all, 198 comparisons were accomplished (6 × 33 = 198).

To illustrate some of the 198 comparisons that were made, table 7 compares students whose father had not graduated from high school with students whose father had graduated from high school on five other risk items. For complete details, see appendix D and appendix G in volume 2 and appendix E in this book.

More than twice as many students whose father had not graduated from high school used alcohol as students whose father had graduated from high school. Of these same students, almost twice as many had low self-esteem, had mothers who were unemployed or held low-level jobs, and parents of more of these students divorced last year. Four times as many of these same students were arrested.

Of the 198 comparisons, 95% were in the same direction – students at risk on one item were more likely to be at risk on the 33 other items than students not at risk on that item, and 76% of these comparisons differed at a level that was significant statistically beyond .001. Again, the differences were consistently in the same direction, and the differences were of such a degree that the likelihood that they might have occurred by chance was minimal.

Over the years, researchers have regularly pointed out relationships between a family's socioeconomic situation and children's achievement in school. What is interesting in the research reported here is the extent to which other items that are non-school related also seem to be affected (for example, death of a sibling, family members' use of drugs, child abuse, student's use of drugs, involvement in a

Table 7. Comparison of students whose father did not graduate from high school with students whose father did graduate on various risk items

Risk Item	Father Did Not Graduate High School	Father Graduated High School	Chi Square
N =	1,680	20,026	
	%	%	
Student used alcohol	10	4	122.53*
Low self-esteem	22	12	141.31*
Mother low-level job	38	18	391.24*
Parents' divorced last year	10	7	19.74*
Student arrested	4	1	66.87*

*Significant beyond .001 level

pregnancy, parents' health, or death of a friend).

COMPARISON ON FAMILY INSTABILITY FACTOR ITEMS

There were four items that comprised the family instability factor:

- broken home (student did not live with real mother and real father)
- moved frequently
- changed schools frequently
- parents divorced last year

In all, 132 comparisons were accomplished (4 × 33 = 132).

To illustrate some of the 132 comparisons that were made, table 8 compares students who lived in a broken home with students who lived with their real mother and real father on five other risk items. For complete details, see appendix D and appendix G in volume 2 and appendix F in this book.

In the illustrative data in table 8, it is apparent that three times as many students who lived in a broken home lived with family members who used drugs as students who lived with their real mothers and real fathers, four times as many were physically or sexually abused, almost twice as many were overage in grade, seven times as many had parents who died (.3% to 2.1%), and more changed schools frequently.

Of the 132 comparisons made, 95% of the differences were in the same direction (students at risk on one family instability factor risk item were more at risk on the 33 other risk items than students who were not at risk on the family instability item). Furthermore, those comparisons differed in ways that were statistically significant (.001) in 81% of the instances.

As reported in previous sections, differences on family instability factor items were both consistent and considerable. Children at risk on one item were more likely to be at risk on other items than children not at risk on the first item. When any risk was evident in a particular child, it was typically pervasive within that child's experience.

Table 8. Comparison of students who lived in a broken home with students who lived with real parents on various risk items

Risk Item	N =	Broken Home 7,505 %	Real Parents 14,201 %	Chi Square
Family used drugs		6	2	232.52*
Student abused		4	1	164.13*
Overage in grade		23	13	329.90*
Parent died last year		2	0	188.81*
Changed schools frequently		28	21	164.07*

*Significant beyond .001 level

SUMMARY

This chapter summarizes 1,122 statistical comparisons made between groups known to differ on specific risk items. In each comparison, students known to be at risk on one item were compared with students known to be not at risk on that same item in terms of the presence or absence of other risks in each child's life.

The major finding was that when any kind of risk is evident in a youngster's life, other risks are generally more evident, too. A young person at risk in one area is likely to be at risk in other areas. Risk is pervasive within the life of a child. And most of the risks are beyond the sphere of influence of the school.

We live in a world that *is*, though everybody is attracted to how things *ought to be*. The reality of how children actually live is often overshadowed by pronouncements of what ought to be. Schools have an obligation to improve the quality of life for young people, and educators work hard to make that come about. But when people outside the schools mouth platitudes about family and home and parents, then blame the school for children's failure to learn what they need to learn, their act of blaming is unconscionable.

Schools reflect society, they do not lead it. Schools are not doing as much as they can, nor are they as effective as they ought to be. That much is certain. But the problems that most children face lie outside the school rather than inside, on the street rather than on the playground, and in the living room rather than in the classroom.

Growing up is risky business, and schools are not to blame.

Schools reflect society, they do not lead it. . . . the problems that most children face lie outside the school rather than inside, on the street rather than on the playground, and in the living room rather than in the classroom.

5

THE VIEW FROM THE CLASSROOM

Teachers were asked to provide two kinds of information about how they worked with students at risk. The first kind of information was summarized for each student and converted to a school effort score. The second kind of information constituted teachers' responses to general questions about teaching students at risk.

In the first instance, one teacher (or counselor) in each of the 276 schools who knew a particular student well and who had access to that student's records in the school responded to 58 questions (see appendix B, volume 2). Forty-five questions related to risk; 13 of the survey questions (items 46 to 58) concerned special teaching procedures used with that student (see list of school effort questions below). The responses to those 13 questions comprised what we call a student's school effort score; what the teachers and others in the school did to help that student learn. The lowest score possible was 0 and the highest score possible was 13.

In the second instance, all of the teachers in each of the 276 buildings were asked to respond to a teacher survey (see appendix B, volume 2) that included questions about how they worked with at-risk students in general. Four of more than 100 questions that were asked of teachers are described below:

1. How much influence do you have over students' attitude toward school?
2. Is it possible for you to help your students cope with substance abuse?
3. When you have students who are at risk, do you regularly use peer tutoring (yes or no) and is it effective (yes or no)?
4. Estimate the degree to which completing assignments is a problem among the students you teach.

Teachers' responses to these questions were analyzed in various ways.

These two kinds of information – what teachers said they did to help specific students (school effort), and what teachers said in general about how they worked with students who were at risk – comprise the body of this chapter.

School Effort Questions

item no. in information about students		No = 0	Yes = 1
46	Was this student placed in *a class that was smaller than typical* for instructional purposes?		
47	Has this student been provided *computerized instruction opportunities*?		
48	Has this student been *referred to special education* for diagnosis or instruction?		
49	Has this student been placed in *lower group* or lower track courses?		
50	Has the school provided *individualized instruction* to this student?		
51	Has the school provided *flexible scheduling* for this student?		
52	Has the school provided *tutoring* or other special assistance to this student?		
53	Has the school provided *extra homework* for this student?		
54	Has the school provided *extra opportunities for parental involvement* for this student?		
55	Has the school provided *extra instruction in the basic skills* for this student?		
56	Has the school *referred this child to the psychologist* or for other services?		
57	Has the school provided *special instructional materials* to this student?		
58	Has the school provided *special teachers* for this student?		

School Effort Score ________

SCHOOL EFFORT

Information regarding the 13 school effort instructional strategies (in italics in the questionnaire above) was provided by teachers who knew each student well and who had access to a student's records in the school. This information was aggregated for all students by grade level.

Teachers at the fourth-grade level (mean = 3.89, SD = 3.37) reported that they used more instructional procedures to help students than teachers at the seventh-grade level (mean = 3.07, SD = 3.20) or 10th-grade level (mean = 2.82, SD = 3.15). No tests of the statistical significance of those differences is reported here because of obvious factors operating to explain the differences.

The differences might be the result of the fact that teachers at the elementary level knew their students better than teachers at the secondary level.

They typically had more time with each student because of the way the school day was organized. The differences may indicate that elementary teachers were more responsive to students' needs than secondary teachers. Or, secondary teachers who answered questions about each student may not have known what instructional provisions were being made for students (who typically had six or more teachers every day), so there were more responses of do not know (which were recorded as no), thus the mean scores reported here may be artificially deflated values. We do not know what these differences mean.

In keeping with the data summarized in chapter 4 (and appendices B, C, D, E, and F at the end of this volume), we analyzed the data about school effort according to whether students were at risk or not at risk on each of 34 risk items (suspended from school vs. not suspended from school, for example). Further, all analyses were done by grade level. Complete results of these analyses are presented in appendix K, tables 66 through 99, in volume 2, but we have reproduced one of those tables here to give you a sense of the differences involved. Table 9 below (identical with table 66 in appendix K) depicts the mean school effort scores of students who had been suspended from school in comparison with students who had not been suspended.

Table 9 shows that fourth-grade students who had been suspended from school got more special help from their teachers (school effort mean was 5.90) than students who had not been suspended from school (mean was 3.86). The same was true for seventh-graders (mean score for suspended students was 5.21 and mean score for students not suspended was 2.96) and 10th-graders (mean score for suspended students was 4.36 and mean score for students not suspended was 2.65).

The general picture? Teachers did more special things for students who were at risk than students who were not at risk, irrespective of the nature of the risk. The mean school effort scores of students who were at risk were higher than the mean school effort scores of students who were not at risk on ev-

Table 9. Comparison of mean school effort scores of students who were suspended vs. were not suspended (by grade level)

Evidence of Risk	Level	N	Mean	SD	t
At Risk	4	94	5.90	3.91	5.86***
Not At Risk	4	5903	3.86	3.35	
At Risk	7	392	5.21	3.66	13.76***
Not At Risk	7	7229	2.96	3.13	
At Risk	10	755	4.36	3.62	14.34***
Not At Risk	10	6586	2.65	3.03	

*Significant beyond .001 level

ery one of 102 comparisons, and 84% of those differences were significant statistically (.001). Teachers in the 276 schools were making major efforts to help students at risk by using more and varied instructional procedures than they used with students who were not at risk.

THE GENERAL RESPONSES OF TEACHERS

The discussion regarding school effort pertained to the specific responses teachers made about individual students whom teachers knew well and with whom they worked on a daily basis. One or two teachers provided that information about each child.

In this section we will describe how teachers responded in general to questions about their work with students at risk. No question pertained to a particular student. Questions were posed in terms of "the students you typically teach." In all, 9,652 teachers from 276 schools responded to the questionnaire. The composition of the group of teachers who participated is as follows:

Composition of teacher respondents

School level	
Elementary	22%
Middle school	30%
Senior high	47%
Did not respond	1%

(Note: The high schools in which we collected data were larger than the elementary schools, thus the sample is skewed as a function of that difference.)

Race	
Asian	2%
Black	6%
Hispanic	2%
White	85%
Other	2%
Did not respond	3%

Average size of class	
less than 15	14%
16 to 20 students	14%
21 to 25 students	30%
26 to 30 students	28%
31 to 35 students	8%
36 or more students	3%
Did not respond	3%

Highest degree held	
No degree	1%
Bachelors	45%
Masters	25%
Masters + 15 hrs.	27%
Doctors	1%
Did not respond	1%

When asked how much time they spent with at-risk students, nearly one-fourth of the teachers responded that they spent more than 50% of their working time with at-risk students.

The question and the findings:

What proportion of working time do you spend with at-risk students?

Less than 10%	21%
11% to 20%	22%
21% to 30%	15%
31% to 40%	9%
41% to 50%	8%
More than 50%	25%

Asked how productive their efforts were with at-risk students, most teachers said so-so or fairly productive.

The question and the findings:

How productive are your efforts with at-risk students?

Not productive at all	4%
Not very productive	14%
So-so/in-between	42%
Fairly productive	33%
Very productive	7%

When asked "How many students failed your course last year?" 27% of the teachers reported none, 55% reported less than 10 percent, 15% reported 11 percent to 25 percent, 2% reported 26 percent to 50 percent, and 1% indicated that more than 50 percent of their students failed their course last year.

When teachers were asked "How many of your students failed one or more courses last year?" 17% indicated none, 44% reported less than 10 percent, 26% reported between 11 percent and 25 percent, 9% indicated 26 percent to 50 percent," and 3% indicated that more than 50 percent of their students failed one or more courses last year.

Teachers reported that their students were below average in reading comprehension, below average in mathematics skills, below average in writing skills, below average in listening skills, above average in daily attendance, above average in general behavior in school, average in attitude toward school, average in completion of homework, average in attention in class, and below average in higher-order thinking skills.

Asked "How responsible do you feel for specific learning or behaviors of the students you teach?" teachers in this study responded above 3 on a four-point scale regarding each of the following: reading, mathematics, writing, listening, attendance, general behavior, attitude toward school, completion of homework, attention in class, and higher-order thinking skills.

Asked "How much influence do you have over students' learning or behaviors?" in those same 10 areas, teachers' mean scores approximated 2.5 on a four-point scale (the mid point) in every area except daily attendance, where it was lower, and attitude toward school, attention in class, and higher-order thinking skills, where the mean scores were higher.

Teachers were asked to indicate who was most responsible for helping students acquire the learning or behavior in the same 10 areas: parents, teachers, or students? These teachers generally thought that teachers were responsible for reading, mathematics, writing, listening, and higher-order thinking skills. Teachers thought that parents were responsible for students' daily attendance and attitude toward school, that students and teachers were responsible for attention in class, and parents and students were responsible for completion of homework and general behavior in school.

Five questions asked teachers whether their students were confronted less or confronted more than students at most other schools regarding certain problem areas. The responses indicated that teachers thought their students were confronted with substance abuse and crime about the same as students at other schools, but that their students were confronted with more family discord, more family instability, and more alcohol abuse than students at other schools.

Asked "Is it possible for you to help your students cope with these problems?" teachers tended to indicate yes to the question about substance abuse and no to the questions about family discord, family instability, crime, and alcohol abuse. Teachers overwhelmingly agreed that parents were most responsible for helping students with the latter kinds of problems.

The 9,652 teachers in this study who responded to the questionnaire were asked about each of 30 teaching strategies.

The questions and the findings:

The evidence is clear: teachers provide students who are at risk with more instructional efforts than students who are not at risk, and teachers are committed to and concerned with helping students who have special problems, whatever those problems might be.

Which of the following strategies do you regularly use? Is the strategy effective?

	Use Regularly	*Think Effective*
Smaller classes	49%	87%
Computerized instruction	23%	50%
Special teachers	67%	85%
Peer tutoring	63%	81%
Retain in grade	44%	48%
Special education	73%	84%
Vocational courses	50%	79%
Alternative school	37%	69%
Special study skills	69%	83%
Special textbooks	48%	71%
Place in low group	55%	55%
Emphasize coping skills	68%	83%
Flexible scheduling	48%	69%
Individualize instruction	79%	91%
Home tutoring	24%	62%
Extra homework	23%	26%
Emphasize thinking skills	86%	83%
Restrict from sports	33%	38%
Refer to psychologist	60%	71%
Refer to social worker	54%	70%
Confer with parents	94%	81%
More time on basic skills	84%	87%
Eliminate art and music	6%	9%
Notify parents	94%	81%
Chapter 1 program	95%	79%
Teacher aides	48%	77%
Say "leave at age 16"	10%	15%
Before-school programs	23%	47%
After-school programs	42%	63%
Summer school programs	56%	71%

Asked to indicate the degree to which each of five things was a problem among the students they taught, teachers indicated that attendance, attitudes toward school, arguments with teachers, and classroom discipline were not problems for them. Completing assignments tended to be something of a problem.

Asked how teachers in their school ought to provide instruction, 67% of the teachers agreed there should be a common program, but each teacher should be encouraged to make variations for individual students. Only 3% of the teachers said there should be a common program that each teacher is expected to follow, 13% said each teacher should decide what to do with his or her students, and 18% agreed with the statement there should be a different but standard strategy for different types of students.

SUMMARY

Teachers in 276 schools provided information about specific teaching procedures used with particular students and about how they worked with students at risk in general. The evidence is clear: teachers provide students who are at risk with more instructional efforts than students who are not at risk, and teachers are committed to and concerned with helping students who have special problems, whatever those problems might be.

In some questions, teachers were asked to indicate if they used a particular practice and how effective it was. More teachers tended to indicate that a practice was effective even though they did not use it in their classroom.

Such data suggest that teachers were not teaching as well as they knew how to teach. We do not know what caused this discrepancy between practice and belief, but the discrepancy is real.

By virtue of their training and experience, teachers tend to focus their energies on educational problems and educational solutions. They think they have less influence and less responsibility for dealing with problems that are rooted in society or in the home. Even so, the data indicate that teachers work hard – very hard – to help students who have special problems, whether those problems developed in the school or in the home.

6

THE VIEW FROM THE PRINCIPAL'S OFFICE

Principals in 276 schools in 85 communities across the country were interviewed with a structured interview format. (See appendix B, volume 2 for a copy of the interview questions.) Each principal had agreed to participate in the Phi Delta Kappa Study of Students At Risk, and it was in these 276 schools that information about students had been collected and that teachers had responded to a 116-item questionnaire (also in appendix B, volume 2).

The interview form was given to each principal one week before the interview was conducted. Some of the questions asked for information about school and district size for each of the 10 years prior to the year in which data were collected, and it was thought that having the instrument early would enable the principal to be prepared.

Several questions asked for information about school and community demographics, and much of that information is not included here. However, many questions asked of principals paralleled the questions asked of teachers, so some of that information is reported here. We begin the report by touching on a few of the demographic questions, then move to what the principals said about their school in its effort to help students at risk.

A FEW DEMOGRAPHICS

The following tables reveal the demographic data of the 276 schools in which we collected information about students at risk:

Composition of principal respondents

School level	
Elementary	94 principals
Middle school	86 principals
Senior high	96 principals
Gender	
Male	77%
Female	23%
Highest degree	
Masters	80%
Doctorate	17%

One third had served as principal in that building for two years or less, another third had been principal there from three to six years, and the remaining third had been principal in that building seven or more years.

Race

Asian	1%
Black	10%
Hispanic	2%
White	86%
Did not respond	1%

Asked to indicate the number of teachers by gender in their schools, principals reported figures which indicated that females outnumbered males by a two-to-one ratio.

Type of community

Large city	14%
Suburb	16%
Small city	31%
Small town	21%
Rural area	17%

Ethnic background of students

White	75%
Black	15%
Hispanic	7%
Asian	2%
Unspecified	1%

Socioeconomic background of students' families

Professionals	16%
Managers/technicians	15%
Skilled laborers	27%
Unskilled laborers	21%
Unemployed	9%

Stability of community

Very stable	13%
Moderately stable	54%
Moderately mobile	25%
Very mobile	7%

More than 97% of the schools were public institutions.

THE REALITY OF THE SCHOOL

Principals were asked to indicate the extent to which each of 16 problems was not serious, somewhat serious, or very serious in their school. In only one of the 16 problem areas did as many as 10% of the principals indicate that the problem was very serious, and that was alcohol use by students, although 40% said attendance was somewhat serious or very serious, 42% said the same thing about attitude toward school, 61% reported that completing assignments was either somewhat serious or very serious, 42% said sexual activity among students was somewhat serious or very serious, and 52% indicated the problem of abused children was somewhat serious or very serious.

Looked at from the opposite point of view, 89% said student arguments with teachers was not a serious problem, 74% said fighting among students was not a serious problem, 99% said assault of teachers by students was not a serious problem, 83% indicated that selling drugs was not a serious problem, 69% said that theft was not a serious problem, 92% said racial conflict was not a serious problem, 75% said classroom discipline was not a serious problem, and 79% said school morale was not a serious problem.

Principals were asked to respond to several questions about what the state legislature, state board of education, or the local school district had done in terms of taking steps to improve the quality of education. Asked whether increased requirements for graduation had been put in place in recent years, 75% of the principals said yes, 72% responded affirmatively to a question regarding increased requirements for teacher evaluation, 74% said mandatory testing programs for students had been initiated in their schools, 63% indicated that restrictions on participation in extracurricular activities for students who did not achieve had been imposed, and 44% had been directed to retain students in grade who did not achieve up to the norm.

However, 82% of the principals reported more teacher involvement in decision making, 62% said working conditions for teachers had improved, and 47% reported they had more school-site autonomy.

Asked to estimate how teachers felt about these changes, the principals indicated that most teachers were positive about increased requirements for graduation, restrictions on participation in extracurricular activities, more teacher involvement, more school-site autonomy, and improved working conditions for teachers. However, principal's estimates of teachers' feelings about increased requirements for teacher evaluation and mandatory testing for teachers ranged from positive to negative.

When they were asked to estimate the effect of these changes on students, principals' estimates were sharply divided on every issue. There was no consensus, even on the question about more teacher involvement in decision making.

Asked how they thought teachers in their school ought to provide instruction, most principals said there should be a common program that allows teachers to make variations for individual students.

The questions and the findings:

Which of the following options represents how you think teachers in this school ought to provide instruction?

Statement	*Principals Agree with Statement*
Each teacher should decide what to do with his or her students.	3%
There should be a common program, but each teacher should be encouraged to make variations for individual students.	89%
There should be a different but standard strategy for different types of students.	6%
There should be a common program that each teacher is expected to follow.	1%

Principals were asked to indicate the cutoff point in their mind that triggered attention to students who might be at risk. They chose from three factors: semester absences, semester grades, and achievement scores. Almost 70% said that if a student missed seven or more days of school, that would cause them to respond; 69% reported that mostly Ds and Fs or all Fs would cause them to respond; and 63% indicated that if a student was more than one year below grade level on standardized achievement tests, that would alert them to the fact that that student might be at risk.

Principals were also asked to respond to the same 30 questions about teaching practices that teachers had answered.

The questions and the findings:

Which of the following strategies do you regularly use? Is the strategy effective?

	Use Regularly	*Think Effective*
Smaller classes	67%	70%
Computerized instruction	50%	47%

Principals indicated that parents should be responsible for all of the problem areas specified: substance abuse, family discord, family instability, crime, and alcohol abuse.

Special teachers	88%	84%
Peer tutoring	58%	84%
Retain in grade	71%	26%
Special education	95%	93%
Vocational courses	49%	53%
Alternative school	32%	42%
Special study skills	60%	56%
Special textbooks	56%	50%
Place in low group	73%	44%
Emphasize coping skills	63%	62%
Flexible scheduling	46%	51%
Individualize instruction	79%	74%
Home tutoring	33%	33%
Extra homework	28%	16%
Emphasize thinking skills	63%	56%
Restrict from sports	51%	34%
Refer to psychologist	82%	61%
Refer to social worker	72%	49%
Confer with parents	99%	74%
More time on basic skills	86%	70%
Eliminate art and music	2%	5%
Notify parents	99%	68%
Chapter 1 program	60%	59%
Teacher aides	67%	64%
Say "leave at age 16"	6%	4%
Before-school programs	16%	25%
After-school programs	44%	43%
Summer school programs	71%	58%

When they were asked to indicate what percentage of time they spent working on problems associated with students at-risk, nearly a third of the principals said they spent more than 30%.

The question and the findings:

What percentage of your working time do you spend on the problems associated with students who are at risk?

Less than 10%	20%
11% to 20%	30%
21% to 30%	19%
31% to 40%	15%
41% to 50%	6%
More than 50%	8%

In response to a follow-up question, most principals said the time spent working with at-risk students was somewhat productive.

The question and the findings:

How productive are your efforts with at-risk students?

Very productive	13%
Somewhat productive	71%
Not very productive	15%
Not productive at all	1%

Principals reported that their school had a great deal of influence over students' reading comprehension, mathematics skills, writing skills, listening skills, daily attendance, general behavior in school, attitude toward school, completion of homework, attention in class, and higher-order thinking skills.

Asked to indicate who was most responsible for helping students acquire learning or behaviors in each of the 10 areas described above, principals indicated that teachers were responsible for reading, mathematics, writing, listening, and higher-order thinking skills. They indicated that parents were responsible for daily attendance, students were responsible for homework, parents and students were responsible for general behavior and attitude toward school, and teachers and students were responsible for attention in class.

Principals were asked whether the students in their school were confronted more or confronted less than students at most other schools with problems of substance abuse, family discord, family instability, crime, and alcohol abuse. They responded that their students were confronted less with substance abuse and crime, and more with family discord, family instability, and alcohol abuse.

When they were asked whether it was possible to help students cope with these problems, principals tended to say yes in every problem area.

When they were asked how responsible do you feel for helping students cope with these problem areas, the overriding pattern of responses from principals was very responsible.

Asked to indicate who should be responsible for dealing with such problems, principals indicated that parents should be responsible for all of the problem areas specified: substance abuse, family discord, family instability, crime, and alcohol abuse.

SUMMARY

These data indicate that principals in the 276 schools that participated in this study feel a keen sense of responsibility for helping students at risk, even in those areas that they think are basically parents' responsibilities.

There was less agreement among principals than among teachers on what works to help students at risk. In the areas of after-school programs, Chapter I, restricting students from sports, thinking skills, flexible scheduling, coping skills, special textbooks, special study skills, vocational education, peer tutoring, and computerized instruction – principals were sharply divided about the use of such programs or whether such programs were effective. There was clear agreement that eliminating art and music were inappropriate, as was telling a student to leave school at age 16. Working with parents was seen as highly appropriate, and so was special education.

Several questions reflected inconsistencies between practice and effectiveness: retaining students in grade, placing students in a low group, restricting students from participation in extracurricular activities, referring students to a psychologist, referring students to a social worker, conferring with parents, and notifying parents. In each instance, principals expressed less confidence in the practice than was implicit in the extent to which those practices were evident in the school.

Some of the differences and lack of agreement described above probably occurred because the responses of principals from all levels were summarized and presented together here, but analysis of responses by level (not reported here) indicated that such differences were less than might have been expected. Principals were sensitive to the problems of students at risk and they worked hard to deal with those problems, but they were less confident that what they were doing in their schools was really effective. Even in those areas where there was almost complete unanimity (use of special education, conferring with parents, notifying parents, for example), principals' levels of confidence in the programs were lower than their reported use of such programs.

Principals were sensititive to the problems of students at risk and they worked hard to deal with those problems, but they were less confident that what they were doing in their schools was really effective.

PART THREE

GOING BEYOND THE DATA

7

UNDERSTANDING STUDENTS AT RISK

Teachers and administrators want to know what teaching techniques they can use, what materials they can employ, what programs they can adopt or adapt to help students at risk. "What works?", they ask. "What can we do?" The findings in this study suggest that before we focus on solutions, we have to understand the problem of students at risk, and some people do not understand the problem.

The findings in this study suggest that before we focus on solutions, we have to understand the problem of students at risk, and some people do not understand the problem.

Suppose we look at students and teaching from a theoretical perspective. Teaching requires teachers to take information in – from students and from the environment – and to give information out – about subject matter and about programs.

Life involves intake and output. Oxygen is inhaled, carbon dioxide is exhaled. Food is consumed, wastes are excreted. Information is taken in, behavior is acted out.

The first two questions of this study

- Who is at risk?
- What are they like?

are questions that can be answered only by studying the results of teachers' intake: what teachers take into their central nervous system when they look at their students, listen to their students, and perceive their students in other ways.*

Comprehending who is at risk and what they are like can be ascertained only by studying teachers' perceptions of children and the information teachers have about each child; what teachers infer about students when they use their afferent neurons in their nervous system.

The last two questions in this study

- What are schools doing to help at-risk students?
- How effective are those efforts?

can be answered only by examining teachers' and administrators' output behavior: what they do, what they create, what they implement in programmatic ways. Determining what schools are doing and how effective those efforts are is possible if we examine what teachers do when they use the efferent neurons in their nervous systems.

***Receiving information* from *students and about students is a different function, physiologically, than giving information* to *or implementing programs for students who are at risk. Hence, the use of physiological terms to explain the intake process.*

Learning is complex. The factors that inhibit learning are equally complex. We must not shift our attention too quickly from who is at risk and what they are like to questions about what programs are available and which ones work. We will always be stumbling in the dark, if we do.

There is an unstated assumption in looking at the problem of working with students at risk this way: output should be affected by, and a function of, intake.

The logic presumes that what teachers do (the programs they provide, the teaching methods they employ, and the information they present) should be based on their precise understanding of who is at risk and what those students are like. By definition, this can be known only after teachers receive information from the students and about the students, not before.

Most teachers and administrators, however, are preoccupied with output questions: What can we do? What should we do? What programs work? Which practices help students at risk?

These are natural questions for educators to ask, but the questions presume that risk is common. To ask which programs are most effective without asking which programs are most effective for specific types of risk is too general.

A child who attempted suicide needs different kinds of information, instruction, evaluation, and support than a child who got poor grades in school. In both cases, the risk indicators evident – attempted suicide and poor grades – are probably the result of other things. Suicide and poor grades are symptoms rather than problems.

One child may get poor grades, for example, because he failed to learn to read well. Another child may get poor grades because his parents do not value education and they never encourage him to do, nor help him with, his homework. Still another child may get poor grades because his peers press him to hang around or do drugs that divert attention from learning, or because his neurological apparatus makes it difficult to relate incoming stimuli to previous experience. In other words, even when the risk indicator shows up the same way – poor grades – the indicator is only a symptom of the problem; it is not the problem itself.

It will take different activities, different teaching methods, and different curriculum materials to help each of these students effectively because the risk is not the same, even though it has been identified by the same label in all four cases: poor grades in school.

For output (curriculum materials, organizational arrangements, methods) to be effective, it must be related to and a function of information taken in by the teacher – from the student and about the student. Programs should not be planned and implemented in the abstract or on the basis of group norms or "typical" considerations. Students assigned to programs for at-risk students are never typical – they are always unique – and it is their individuality and uniqueness that must be comprehended and responded to by teachers, not their similarities and generalities.

Learning is complex. The factors that inhibit learning are equally complex. We must not shift our attention too quickly from who is at risk and what they are like to questions about what programs are available and which ones work. We will always be stumbling in the dark, if we do.

The job for educators is to ferret out the factors that cause problems rather than to focus on symptoms, and that means attending to the first two questions posed above: Who is at risk? and What are they like? A problem cannot be solved until it's known exactly what the problem is.

We need research to untangle and nail down the complex logic and interactions that lead to various kinds of problems in school; a kind of path analysis to comprehend the links that appear and develop over time and that reveal (cause) the many problems that must be dealt with in schools.

In the examples cited above, the basic question is: What causes a person to be a poor reader? The answer, of course, is that many things can cause a person not to learn to read well: physical factors, home factors, peer factors, curricular factors, instructional factors, and other factors. To understand risk, we must figure out three things: What risk factors are evident in a young person's life? What caused those factors to develop or evolve in such a way that the risk showed up in the form in which it did (poor reading, for example)? and Why do some people with these same factors operating in their lives overcome the risk (read well)?

Information about a student is usually collected at one point in time; it represents a cross-sectional perspective on that student's life. But life is developmental. Experience accumulates and develops over time. Illness develops over time. Self-concept develops over time.

Professionals who work to help another person enter that other person's life at a particular point in time, and the professional's observations always start out, at least, as a cross-sectional view of the other person. If what is observed is just beginning to develop, it will look very different from something that has been developing over a long period of time.

Consider an example. Imagine that carcinoma begins in an individual at age 50, say, and develops until death occurs.

A cancer, looked at in the first few weeks of its existence, would look very different from a cancer looked at one year or 10 years later. Yet the physician always has a cross-sectional perspective: he gets a one-shot view of the disease, at some point in time. Further, he does not know, initially, at what point in the cancer's development he is viewing it. From that one-shot cross-sectional perspective, the physician must estimate and piece together information that will enable him to comprehend what the reality is, where in its unfolding or development it is, and what the consequences are apt to be in the future if nothing is done or if something is done. Over time, the physician may have an opportunity to follow the development of the cancer in the patient, but the physician must make an accurate diagnosis early on, or following the development of cancer over time will be a futile exercise.

The same thing is true about educational phenomena. A student's attitude toward school, for example, may begin to develop about the time the child begins his or her formal schooling. The attitude is probably not fully formed for some time, then it may change in positive, negative, or other directions. A teacher who is trying to ascertain the student's attitude toward school might make one inference (diagnosis) from the information available at age six, another inference at age 10, and a still different inference at age 16.

Unfortunately, we do not always have the kinds of observational devices that enable us to make valid inferences about a youngster's attitude toward school or self-concept or where that

Children at risk have their own unique capabilities and problems, and teachers must be aware of and comprehend the reality of those capabilities and problems, or they will not be helpful.

child is in terms of comprehending certain cognitive understandings or moral developments.

Further, those who are in a rush to get on with what they define as "teaching" may spend so much energy on output, they are not even fully aware of the realities of the student as a learner. Teachers who define teaching as "presenting subject matter" or "giving students information" may be insensitive to the fact that some youngsters are "on a different wave length" because their previous experience or cognitive abilities or motivational patterns do not mesh with whatever is being presented by the teacher at that point in time.

Children at risk have their own unique capabilities and problems, and teachers must be aware of and comprehend the reality of those capabilities and problems, or they will not be helpful.

We can study the patterns of information that research suggests predict different types of risk (see appendix F, volume 2) for clues regarding different causes for different risks, but logic, facts, and experience all make this point: different problems have different causes, and different problems require different solutions. We have to understand the problem first, and that means taking information in before we put out solutions of any kind.

There may be some things that are common to various types of risk, but certain things are unique to each risk type, also. If we can figure out what is common and what is unique that contributes to or causes particular kinds of risk, we will be way past where we are now, which is working on symptoms, in the main.

We must tease out experimentally and sort out logically the sequence of observable incidents or developments that lead to (are related to or cause) each of the risks identified in this study as well as others not identified.

For example, attempts at suicide are generally preceded by bouts of melancholy or depression. Would it be reasonable to propose that depression is preceded by frustration? Could we find out if frustration experienced at the time of a negative sense of self-esteem triggers bouts of depression? And is there more than one series of events that can lead to frustration, which leads to depression, which may lead to attempts at suicide?

We already know that various preconditions cause a child to be a poor reader, but it could also be true that several of these routes may lead to one common factor that causes or results in poor reading ability. Perhaps something like the following occurs:

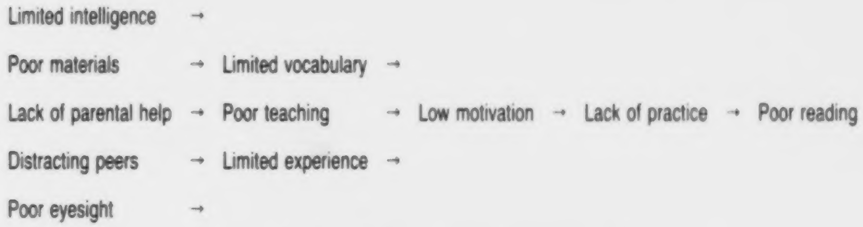

Figure 1. Possible causes of poor reading

Educators often argue about which methodology or which materials will help students read better, but our guess is that we do not yet know enough about the pathologies of reading (what poor readers actually do or are like). Again, we must shift attention from the output behaviors of teachers – programs, methods, materials – to their intake behaviors, including the important questions: What are poor readers like? and How does poor reading show up in the real world?

Given figure 1 above, we might assume that one sequence fits one type of youngster and another sequence fits another youngster, thus we must identify the variable or variables that differentiate these two (or more) types of children at risk.

Our data (see appendix F, volume 2) show that several patterns of risk factors predict who drops out of school (and who is a poor reader, who uses drugs, and so forth). This suggests that we need a typology of dropouts, so to speak. One type of dropout may be fundamentally different from another type of dropout.

For example, the girl who gets pregnant and drops out of school is different from the girl who is bored to death with school and sees no relevance to the experience. The boy who drops out to go into the army is different from the boy who repeatedly experiences frustration and failure because he did not learn to read well. The student who has difficulty coping with authority is different from the student who fails to get enough practice from homework.

And it is possible that Student Type A needs a more supportive instructional strategy, Student Type B a more structured approach, Student Type C more evocative curriculum materials and more time, and so on. The non-programmatic approach (individualized approach) is the only one that makes sense, theoretically, because of the differences evident among young people in school.

As H. L. Mencken said, "for every complex problem, there is a simple solution, and it's usually wrong." It's not wrong for everybody – some will benefit from the approach, whatever it is – but it will be wrong (not appropriate, ineffective) for most people, because students are different. Employing one system – one best way – will never work for all students or even for most students.

We have to understand the problem first, and that means taking information in before we put out solutions of any kind.

The intake aspects of professional activity can be characterized by facts, objectivity, and rationality. There are few ideological disagreements in this realm of professional life. Teachers can be trained to become reliable observers and to see the same thing.

The output aspects of professional activity (the programs we employ) are often ideological. Strong feelings are expressed by teachers and administrators for or against certain programs, for example.

Because educators get money for programs, and different theoretical perspectives shape different programs, the ideological differences emerge as contending arguments. If we can accept the fact that there is no one best way (because people are different), maybe we can get on with the task of matching ways (methods and materials) with problems (types of risk). If we cannot do that, we perpetuate discussions and arguments that never end because they are rooted in ideology rather than fact.

If we go back to the medical analo-

Employing one system — one best way — will never work for all students or even for most students.

gy, we know that a person who is a heavy drinker, overweight, smokes, and gets very little exercise has several factors that increase the probability of several different kinds of health problems: heart disease, lung cancer, cirrhosis of the liver, and diabetes, to mention a few.

In the same way, if a youngster comes from a home in which one parent recently lost his job, the other parent did not graduate from high school, the student has been seriously ill, has poor reading scores, is failing courses in school, has low self-esteem, and has been drinking alcohol, we know that youngster faces the probability of several different types of problems: academic problems, personal problems, and social problems.

The questions become: What is cause, and What is effect? What leads to what? Can we sort this out in some reasonable way?

Researchers hesitate to attribute causality to anything, but certain things do, in fact, cause other things to develop. Sorting out causes involves studying the sequence of events carefully. Then, if the logic of circumstances – the sequence of events and the reality involved – are such that cause seems probable, statistical relationships take on special significance. But only if the logic makes sense.

Identification does not cause problems. Specifying a problem, naming it, particularizing details, and documenting its existence are not related to cause. Some people argue that labeling children can lead to negative self-concept, and that is correct, but we dare not shy from applying descriptive labels to instances of risk, otherwise we may not know how to deal with those risk factors because we are not sure what is involved. Language is important. Having the physician apply a name to a disease makes people feel better, even if the disease is serious. Naming implies knowing, and knowing is always a step in the right direction. Labeling a problem properly, an important part of diagnosis, helps the professional move toward effective intervention.

In a previous study, the senior author worked with classroom teachers at the Annehurst School over a period of several years to develop concepts and procedures for assessing individual learner's strengths and weaknesses.[65] We have taken the concepts of the Annehurst system and added the ideas developed in the present study to them as one approach to helping teachers comprehend the complex reality of another human being.

In the pages that follow, 13 aspects of human existence that relate to learning are set forth in outline form. Six of these aspects or factors are personal attributes that affect learning:

- previous experience
- intelligence
- motivation
- personality
- creativity
- sociability

Three are risk factors identified in this research

- personal problems
- family problems
- school problems

and four are sensory modalities or learning style factors:

- verbal facility
- auditory perception

- visual perception
- kinesthetic perception

Each of these factors is described by terms at either end of a continuum. The left-hand end of the continuum portrays strengths or lack of problems; the right-hand end of the continuum depicts weaknesses or presence of problems.

Using schema like these as assessment devices might enable teachers to identify each student's strengths and weaknesses – a step in the direction of accurate diagnosis – with the hope of developing instructional approaches that could be tailored to each student's learning needs. What teachers do could be matched precisely with what each student really needs. Rather than employing programs, which are inevitably based on the premise of one best way for all students, teachers could individualize their ways of working according to each student's unique strengths, weaknesses, problems, and attributes.

Taken in its entirety, the Annehurst system is a way of classifying, organizing, storing, and retrieving curriculum materials in terms of those dimensions of human existence that make a difference in learning (previous experience, intelligence, and motivation, for example), so teachers can match curriculum materials with students' interests, abilities, and needs. Adaptations could be developed and added to the Annehurst system that would encompass the problem areas that this research has identified.

Figure 2. Personal attributes that affect learning

strength	PREVIOUS EXPERIENCE	weakness
traveled widely		not traveled much
stimulus-rich background		stimulus-poor background
read a lot		read very little
mastered previous learning		not mastered learning
has skills of learning		lacks skills of learning
high achievement record		low achievement record
extensive interests/activities		limited interests/activities

strength	INTELLIGENCE	weakness
rational		irrational
can integrate ideas		cannot integrate ideas
contemplative		shallow thinker
quick to learn		slow to learn
intrigued with complexity		intolerant of complexity
reflective with ideas		impulsive with ideas
has good memory		has poor memory

MOTIVATION

strength	weakness
energetic	lazy
persistent	easily discouraged
shows initiative	lacks initiative
enthusiastic	bored
tries hard	gives up easily
purposeful	aimless
inquisitive	indifferent
future-oriented	present-oriented
curious	uninterested
able to delay gratification	seeks instant gratification

PERSONALITY

strength	weakness
patient	impatient
open-minded	closed-minded
accepts blame	blames others
good natured	moody
has sense of humor	lacks sense of humor
confident	lacks assurance
mature	immature
optimistic	pessimistic
independent	dependent
deliberate	impulsive
internal locus of control	external locus of control
dependable	undependable
responsible	irresponsible

CREATIVITY

strength	weakness
innovative	traditionalist
flexible	rigid
original	copyist
risk taker	cautious
fluent with ideas	restricted with ideas
autonomous	conforming
able to elaborate	difficulty elaborating
able to form patterns	difficulty forming patterns
imaginative	unimaginative

SOCIABILITY

strength	weakness
communicative	uncommunicative
participator	loner
cooperative	uncooperative
forgiving	holds a grudge
friendly	unfriendly
empathic	callous
sympathetic	unsympathetic
tolerant	prejudiced
altruistic	selfish
respectful	disrespectful

Figure 3. Risk factors that affect learning

PERSONAL PROBLEMS

strength	weakness
no attempts at suicide	attempted suicide
not involved in pregnancy	involved in pregnancy
not involved with drugs	uses drugs or sells drugs
does not use alcohol	uses alcohol
not suspended from school	suspended from school
not arrested	arrested
not abused physically/sexually	abused physically/sexually
family members do not use drugs	family members use drugs
parent not alcoholic	parent alcoholic

FAMILY PROBLEMS

strength	weakness
parent employed and skilled	parent unemployed/unskilled
parents graduated from high school	parents did not graduate from school
lives with real parents	parents divorced
English spoken in the home	English not spoken in home
same house, same school	changed homes, changed schools
parent not ill	parent ill or died last year
parents' job not in jeopardy	parents lost job last year
sibling or friend did not die last year	sibling or friend died last year
student not ill last year	student seriously ill last year
parents' attitude about school positive	parents' attitude about school negative

SCHOOL PROBLEMS

strength	weakness
reading scores above 20th percentile	reading scores below 20th percentile
did not fail courses last year	failed courses last year
grades C or higher	grades D or lower
not retained in grade	retained in grade
not overage in grade	overage in grade
absences not excessive	absences excessive (20 + days)
positive sense of self-esteem	negative self-esteem
not in special education	referred to special education

Figure 4. Learning style factors that affect learning

VERBAL

strength	weakness
fluent speech	labored speech
responds in complete sentences	one-word response
relevant verbal response	responses not relevant
proper pronunciation	mispronounces common words
uses correct plural	uses incorrect plural
seldom makes grammatical errors	makes grammatical errors
seldom makes syntactical errors	makes syntactical errors
responds immediately	delays in responding

AUDITORY

strength	weakness
concentrates in noisy situation	easily distracted by noises
perceives phonic sounds	cannot perceive phonics
understands words in songs	cannot understand words in songs
can recall how things sound	cannot recall sounds
can restate words in sequence	cannot restate words in sequence
follows directions	cannot follow directions
recognizes partial spoken words	cannot recognize partial spoken words

VISUAL

strength	weakness
follows symbols left to right	difficulty following symbols
sequence and match symbols	cannot sequence and match symbols
sequence and match objects	cannot sequence and match objects
distinguishes figure from ground	cannot distinguish figure from ground
comprehends visual stimuli	confused by visual stimuli
copes with color-coded materials	difficulty with color-coded materials
identifies similar objects in varied contexts	difficulty with similar objects in varied contexts
recalls visual stimuli sequence	difficulty with visual stimuli sequence
discriminates horizontal, curve, diagonal	difficulty discriminating horizontal, curve, diagonal
coordinates hand and eye movements	cannot coordinate hand and eye movements
forms letters easily	difficulty forming letters
completes incomplete forms and patterns	unable to complete incomplete forms

MOTOR/KINESTHETIC

strength	weakness
manipulates small objects easily, skillfully	difficulty manipulating objects easily
hand/eye coordination smooth	difficulty with coordination
maintains body balance	difficulty with body balance
moves rhythmically	does not move rhythmically
no difficulty with laterality	difficulty with laterality
no difficulty with directionality	difficulty with directionality
no difficulty with spatial relationships	difficulty with spatial relationships

STRENGTHS AND PROBLEMS IN LEARNING

In the examples given in figure 2, teachers could ask themselves this question: Which list of terms is most characteristic of this student? Is the child more like the terms in the left-hand column or more like the terms in the right-hand column? It would be a general but professional assessment.

For the three problem factors in figure 3, a different kind of question could be posed: Does the student evidence any of the problems specified in the left-hand column? If so, the student should be assessed as having problems in that area. These three problem factors should not be used in the same way that learner characteristics are assessed, but problem factors could serve as a screening device to identify problems or pathologies in a student's life.

By adding the Annehurst concepts to the risk concepts, the possibility of building on strengths and dealing with problems could be enhanced. In other words, teachers would not have to focus exclusively on weaknesses or difficulties, but they could also build on strengths.

It may be that the problem areas could be dealt with most effectively with methodological variations, whereas the Annehurst factors could be dealt with in curricular terms. Such an approach would require a methods match on the problem factors and curriculum materials match on the Annehurst system factors.

The personal problems area, for example, probably needs a supportive, counseling approach: listening to the student, encouraging the student to talk about difficulties, specific informational responses to a student's request for help, and the like.

The family problem area probably needs support, upholding, patience, understanding, communication with the home, and the like. It may also require coordination and intervention with other agencies (social welfare, judicial system, and church, for example).

The school problem area may need direct instruction, feedback, recognition, esteem building, reinforcement, plus small steps, instruction toward skill development, assistance with independent learning, and things like that. And in the school problem area, a direct tie with Annehurst curriculum subject topics would probably be helpful.

Using the Annehurst system – factors as strengths to build on – the problem areas are cast in a different light. The 13 factors broaden a teacher's perspective and enable a teacher to see a young person's positive qualities as well as his or her areas of weakness or difficulty. That might enable the teacher to tailor teaching techniques, curriculum materials, and learning activities to each student's basic learning needs, because students' attributes and strengths would be assessed as well as problems and weaknesses.

Finally, tying these notions to a revised concept of structure (how a teacher structures a classroom) might help us rethink educational method in a fresh way. Some of these ideas are explored in the next chapter.

8

HELPING STUDENTS AT RISK

Teachers and administrators want to know "What works?" They want ideas and suggestions that respond to the question "What can we do on Monday morning?"

In this chapter we describe three things about helping students at risk. First, we recount what we learned when we visited seven of the schools that were part of this study in which teachers and administrators were working with students judged to be very much at risk. Second, we review some things that other researchers have concluded helps students at risk. Third, we develop still further the intake-output conception of teaching in theoretical ways.

SEVEN SCHOOL VISITS

In this chapter we describe the process by which we identified schools thought to have many students who were highly at risk. Briefly, using the information provided by teachers who knew each student best and who had access to a student's records in the school, we reviewed the mean risk scores for each of the 276 schools that were involved in this research. These scores were produced by summing each student's score on the 45 items on which we collected information about each student, then deriving a mean risk score for each school.

Schools were then listed (by grade level) in rank order, according to the degree of risk evident in the school, and the median was determined. Schools above the median were assumed to be high-risk schools; schools below the median were assumed to be low-risk schools.

Next, we compiled the school effort scores for each school by summing the individual student's school effort scores (summing the number of yes answers for each student that referred to whether or not the school was making a special effort to help that student by using a particular instructional strategy).

Schools were listed (by grade level) in rank order, according to the amount of school effort employed in the school, and the median was determined. Schools above the median were assumed to be high-effort schools; schools below the median were assumed to be low-effort schools.

Then each school was assigned to one of four categories, depending on its location in the rank orderings:

high risk/high effort
high risk/low effort
low risk/high effort
low risk/low effort

Categorization of schools according to risk and effort was accomplished separately for schools with students in fourth grade, seventh grade, and 10th grade. We then studied other data available about each school – information from the principals' interviews and teachers' questionnaire responses – and narrowed the number of schools to 31, each of which was a high risk/high effort or high risk/low effort school, according to the categories described above.

In the fall of 1990, these 31 schools (all high risk) were invited to collect follow-up information on each of the students about whom they had provided information two years earlier. (See appendix H, volume 2 for the survey instrument.) Students who had been in fourth grade were then in sixth grade, students who had been in seventh grade were then in ninth grade, and 10th-grade students were in 12th grade.

Ten schools were able to find their original listings of students by ID number and willing to do follow-up for our research team. Information was collected in December 1990 and January 1991, and that information constituted the basis for assessing and predicting risk described in detail in volume 2 of this report.

We contacted each of these 10 schools in January 1991 and asked if we could spend a day in the school to learn more about what they were doing for students who were at risk. The principals in nine schools agreed, and seven schools (located in Arkansas, California, Mississippi, Ohio, and West Virginia) were visited by at least two members of the research team between March and May 1991.

Principals, counselors, teachers, and others were interviewed at each of the schools. The general question asked was: How do you identify students who are at risk, and what are you doing to help those students?

Most of the schools used conventional approaches to identify students at risk: rank in class, attendance, low reading scores, poor grades, free lunch, and teacher judgment. One school said they now employed the 45-item scale that had been used first in this research study, in addition to the usual criteria.

Asked what they were doing to help students at risk, principals and others in the schools described a variety of programs and efforts underway: counseling, Chapter 1 programs, inservice training for teachers, drug-prevention programs, dropout prevention programs, parenting programs, homogeneous grouping, directed study, programs for pregnant teens, self-esteem training, work study, expanded course offerings, seven-period day, pass-on clothing, and free breakfasts, to name a few.

High-risk/high-effort schools were demonstrably different from high-risk/low-effort schools in terms of both number of programs, variety of efforts made to help students at risk, and originality of efforts. High-risk/high-effort schools exuded an intensity and excitement in the buildings that were not evident in the high-risk/low-effort schools. More – much more – was being done in high-risk/high-effort schools than in high-risk/low-effort schools, and what was being done was inevitably a reflection of the principal's or a teacher's or counselor's ideals and enthusiasm.

Several schools had a variation of "Save One Student" programs; each adult in the school assumed responsibility as a buddy, counselor, helper, tutor, or whatever for one student who was seriously at risk. The idea was to be available to the student at any time, to provide encouragement, suggestions, and support for what the student was doing, to be the student's advocate if trouble developed, and to develop a relationship with the student that would make it possible for the student to have someone to fall back on if problems of any kind unfolded.

One high school had a business-education partnership with a local industry that enabled the school to put $40 into a scholarship fund for each A grade and $30 for each B that a student earned, thus helping bridge the financial gap from high school to college for students from impoverished backgrounds.

Several schools had efforts underway to foster the development of motivation and self-esteem among students at risk. Information and activities designed to promote feelings of self-worth and confidence-building were evident at every level. One school had huge posters produced commercially that were changed every month to promote racial pride and racial awareness as a way to enhance sensitivity and personal pride regarding racial or ethnic background.

Visits to the schools convinced us that teachers and principals in some schools were deeply committed and working energetically and creatively with students at risk; others were doing what they have always done – more of the same.

WHAT OTHER RESEARCH SUGGESTS

Slavin reviewed the literature on ability grouping in elementary schools and its effect on achievement. He concluded:

> *The best evidence from randomized and matched equivalent studies supports the positive achievement effects of the use of within-class ability grouping in mathematics in the upper grades and of the Joplin Plan in reading. In contrast, there is no support for the practice of assigning students to self-contained classes according to general ability or performance level, and there are enough good quality studies of the practice that if there were any effect, it would surely have been detected.* [66]

Slavin also reviewed the research on ability grouping at the secondary level, using a best-evidence synthesis. Achievement effects were basically zero for all studies, except for social studies, which favored heterogeneous grouping. He concluded:

> *Comprehensive between-class ability grouping plans have little or no effect on achievement as measured by standardized tests.*
>
> *Different forms of ability grouping are equally ineffective.*

> *Ability grouping is ineffective in all subjects, and there may be a negative effect of ability grouping in social studies.*
>
> *Assigning subjects to different levels of the same course has no consistent positive or negative effects on students of high, average, or low ability.*[67]

Jackson reviewed research regarding the effect of retaining students in grade, and he found no evidence that retention was more beneficial than promotion.[68]

Holmes and Matthews conducted a meta-analysis of 44 studies selected from a bibliography of 650 entries, and they reached a similar conclusion: retention is not helpful. They reported that

> *. . . promoted students on the average had achieved .44 standard deviation units higher than the retained group (and) each of the subareas produced negative mean effect size values, indicating that nonpromotion had a negative effect on pupils.*[69]

Madden and Slavin reviewed research on pull-out programs in schools (Chapter 1), and while most of the programs used diagnostic-prescriptive models, very few showed convincing evidence of success. They concluded:

> *. . . the more time students spent in pull-out programs, the less they learned . . . the pull-out program is rarely integrated with that provided by the regular classroom teacher (and) time is lost in transition.*[70]

Flores, Cousin, and Diaz described an inner-city program in Los Angeles based on explicit assumptions about learning and a whole language approach to language development and reading. They reported that achievement scores rose over a three-year period.[71]

Slavin and his colleagues evaluated "Success for All" in seven schools, a program that involves one-to-one tutoring for 20-minute periods every day and reduces the time students spend doing seatwork. Students in "Success for All" programs outperformed matched control students.[72]

Karweit reviewed preschool programs for children at risk that had been evaluated carefully, and she concluded that there are short-term and long-term benefits for children from participation in well conceptualized, highly integrated, and very structured programs.[73]

Slavin reviewed research on programs for students at risk and pointed out that retaining students in grade is harmful, and pullout programs that are diagnostic and prescriptive may keep students from falling further behind, but they are not really effective. He reviewed only studies of programs that could be replicated in schools other than those in which they had been developed, had been evaluated for at least one semester and compared to a control group (or shown year-to-year gains), and showed effects in reading or mathematics of at least 25% of an individual standard deviation.[74]

He reported that Chapter 1 and special education programs seldom bring students up to an adequate level of performance, but early intervention, continuous progress, cooperative learning, remedial tutoring, and computer-assisted instruction programs have been effective.[75]

Freedman described one inner-city teacher's work with disadvantaged high school students. He implied that her effectiveness was a function of intense dedication and caring for students and her all-encompassing commitment to help young people develop and learn and grow.[76]

Boyd reviewed research about what makes ghetto schools succeed or fail. He used Ogbu's theoretical distinctions to organize his research, and he pointed out that the school as workplace is ill-designed and frustrates teachers, students, and administrators. He concluded that, even though "there are always some maverick principals willing to take risks and buck the system to make their schools work more effectively, such "atypical examples do not provide a practical model for how to reform large city school systems."[77]

Boyd questioned the effective schools research and said it was simplistic, and he pointed out that "Head Start, Chapter 1, and various summer programs have been generally beneficial, (but) they do not make a large difference for most disadvantaged children." He also suggested that Comer's program for black youth and Levin's emphasis on acceleration (rather than remediation) programs offer real promise.[78]

Slavin synthesized research on cooperative learning and concluded that it was an effective strategy,[79] and he and his colleagues advocated "never streaming" as an effective prevention alternative to special education.[80]

The United States General Accounting Office surveyed 1,082 local programs for school dropouts nationwide, and staff members visited the sites of 14 programs. They concluded that most of those served were poor, urban, minority youth, age 16 or younger, who were at risk of dropping out. The programs typically provided a wide range of services, including basic education, counseling, and assistance in obtaining social services.[81]

Sticht and others described how the armed forces taught low-aptitude youth literacy skills and the assumptions and theoretical perspectives on which the instruction was based. The military approach combined basic skills and technical skills, and presumed that all new knowledge is acquired on the foundation of old knowledge; concrete experiences were used first and abstract experiences followed; knowledge development focused on job-related literacy training; and the active information processing maximized transfer and comprehension.[82]

Richmond described Eugene Lang's offer to pay college costs of inner city sixth-grade students who completed high school and went to college as an effective incentive plan. In all, 44 of 54 sixth-graders completed high school, and 34 went on to college. Money went directly to students rather than the institutions involved.[83]

McPartland and Slavin reviewed research related to increasing achievement of at-risk students at each grade level, and they concluded that retention in grade, tracking, and special education were not effective, but prevention programs (preschool programs, for example), continuous progress, and cooperative learning were effective strategies at the elementary level. At the secondary level, dropout prevention programs that were successful were characterized four ways: student success in school, positive student/adult relationships, relevance of school experience, and minimization of outside interferences (gang-related activities, use of drugs, and so forth).[84]

McLaughlin and others reviewed research reports and conducted site visits in three schools regarding teaching and learning. They stipulated that a "personalized school environment" which included an "ethic of caring" was effective. The authors concluded that "personalization is a matter of organizational design rather than of individual teachers' values and practices." Further:

> *Each of these schools has vested authority in the personalized working relations among its adults and youngsters. Each has its own strategies to help create and maintain this kind of authority. And each is a school in which students and teachers together are actively engaged in the enterprise of education.*[85]

Baldwin reported that more than 700,000 persons took the General Education Development (GED) Tests in 1989 and approximately half passed, primarily to meet educational admission requirements. The GED is a major program to help dropouts continue their education.[86]

Joyce described a collaborative research project among eight university hospitals aimed at providing comprehensive intervention services for low-birth-weight infants. She reported an overall improvement in IQ scores and consistently fewer behavior problems, thus high-quality day care can be both safe and beneficial to low-birth-weight infants.[87]

Osterlind studied the effect of preschool experiences on children's development and learning. He reported positive results between preschool experience and reading achievement and reading readiness.[88]

Jones described a study of the effect of half-day preschool experiences on black children's achievement over time. Students in the program outscored comparison groups.[89]

Sontag, Sella, and Thorndike studied the effect of Head Start training on the cognitive growth of disadvantaged children in New York City. Head Start students were ahead of their control counterparts on a preschool inventory but not on the Stanford-Binet Intelligence Test.[90]

Darlington and colleagues studied the effectiveness of Head Start programs in relation to later school competence, and they reported that students who had experienced Head Start were more likely to meet the requirements of their schools than children with no preschool experience. Students who attend Head Start were also assigned to special education less often and experienced retention in grade less often.[91]

Becker and Epstein surveyed 3,700 teachers in Maryland regarding their involvement with parents. They reported that only a few teachers initiated interactions with parents that went beyond what was traditionally expected of them. Further, teachers did not know how to work with parents, and many rejected the possibility of using techniques that involved informal activities in the home because they felt the activities would be too difficult for parents. Regardless of the technique they used, less than 10% of teachers requested parental cooperation.[92]

Chavkin and Williams surveyed parents and school administrators in six southwestern states and reported that parents expressed interest in participating in a wider array of school decisions than educators felt would be useful.[93]

Natriello, McDill, and Pallas examined programs at the secondary level of four types: programs designed for academic success, programs to provide positive social relationships, programs designed to enhance the relevance of school, and programs to provide supportive conditions outside of school (Summer Training and Employment Program, Upward Bound, Job Corps, Boston Compact, I Have a Dream Program, Kids Place in Seattle, and the New York City Dropout Prevention Initiative, and so forth). Research evidence was weak, in most cases, but

> *. . . the practices assembled into specific programs offer a wealth of ideas about ways to respond to the needs of disadvantaged youth. We can take from our review . . . some understanding of the information needed . . . and insights to guide the development of a comprehensive strategy.*[94]

In the next section, we explore the theoretical ideas initiated in the last chapter – intake and output aspects of teaching.

THE OUTPUT PHASE OF TEACHING

In the last chapter, we began a discussion of teaching as intake-output behavior. We argued that teachers need to take information in, from the student and about the student, before they decide what goals the student should try to achieve, what materials would be most appropriate, what methods would be helpful, and so forth.

The intervention aspect of teaching – the output phase, as it has been described here – consists of a number of things: time, intentions, content, methods, activities, materials, valence, and interaction of these variables, to name a few.

Time, for example, can be thought of in terms of minutes or hours per day, number of days per week or year, or in terms of spacing of time or concentration of time.

Curriculum materials display content, but this may be done in printed form, pictorially, through sounds, graphs, numbers, or otherwise. Further, any of these aspects can be particularized in various ways. For example, print can be thought of as size of type, kind of font, length of sentences, number of syllables, breaks in the page, and so forth.

Content can be thought of as topic, level of detail of topic, sequencing of content (for example, deductive, inductive), size of "chunks" of topic to be dealt with at any given point in time, and the like.

And the topic itself relates to the learner in terms of what is usually referred to as "interest." Some topics are attractive or appealing to certain students; other topics hold no interest or appeal for those same youngsters. Interest is probably a function of experience (both direct and vicarious) and one's perceptions of strengths or skills. People can be induced to experience content to the point that they acquire or develop an interest in the topic; or they may be turned off after coping with those ideas extensively.

The energy for learning comes from the learner and the responsibility for learning must be assumed by the student.

To be concerned about what works, one must be concerned about all of these things. The whole discussion here is simply to underscore the obvious: teacher output behavior (broadly defined) must be considered in relation to the student as a person – intellectual abilities, previous experience, motivation, skill in interacting, interest in the topic, and so forth.

Energy for learning comes from the learner. Teachers must do what they can to incite energy output, and teachers must time things so that curiosity will peak at the moment stimulus material is available and in a form to be perceived. But the energy for learning comes from the learner, and the responsibility for learning must be assumed by the student. The student must reach out, so to speak, and grasp or grapple with information that the teacher presents or makes available or directs the student's attention to. That interaction between student and content must be nurtured, reinforced, practiced, and reflected upon to bring about understanding and meaningfulness, but the student has to lead that charge. The student must be the active leader in the interactive process, manipulating the ideas, posing questions to himself or herself, making inferences about meaning and value. The student must be purposefully involved, by his or her own choosing.

Just as certain medications interact with other medications or with alcohol, certain ideas – subject matter content in school – interact with certain values or attitudes or previous experiences inside the learner. Sometimes those interactions are helpful, sometimes they are harmful. Sometimes the interactions facilitate learning, sometimes they inhibit learning. We need to understand as much as we can about the nature of interactions and the direction (+ 0 –) of such interactions.

In living tissue there is a movement or force in the direction of health (homeostasis). The body strives to cope with harmful intake by coughing if it is inhaled, by vomiting if it is consumed, by surrounding with white cells if it is infectious. Not all harmful ingestions or instances can be handled by the body that way, but the general thrust of the life force is to perpetuate life, to restore health, to repair damaged tissue, to heal.

It seems reasonable to presume that something like that exists or operates inside the learner in terms of learning. All people want to learn. The human organism seeks information and new experience; the natural inclination of life itself is in the direction of seeking out new and novel and meaningful stimulus material.

If these ideas are correct, then perhaps the most reasonable explanation of why some children have difficulty learning or refuse to learn is because what we require them to learn is perceived as threatening or irrelevant or meaningless. Our bureaucratic approach to schooling has an aura of rationality that makes it difficult for professionals to question either the what or the how of education. From the child's point of view, however, either the what or the how (or both) may not be in harmony with the life force of the individual. Our logic of curriculum may not match the psychology of their learning preferences or styles or needs. We are good at convincing ourselves as adults that what we are doing is noble and worthwhile, but it may not square with children's needs, or at least not with some children's needs.

What children need to learn can be talked about or thought about from various perspectives. If we discuss what children need to learn from a vocational point of view, for example, we get a very different answer to what children need to learn than if we think about those needs from a social or cultural point of view. What a person needs to learn in order to be a farmer or engineer or teacher or lathe operator may be very different from what a person needs to learn to be a good American or German or Japanese. Likewise, what a person needs to be a fully-functioning, self-directing, autonomous, and rational individual may be very different from what a person needs to learn to be a lawyer or clerk or to live in an urban area in France or a rural area in Argentina. Needs must be examined and ascertained in vocational and cultural and personal perspectives.

SUMMARY

Educators are concerned with "What works?" Evidence abounds that teachers and administrators are working hard to help students identified as being at risk. High-effort schools in this study were doing more and doing it differently than schools that were classified as low-effort schools. The research indicates that much of what schools are doing is of little value, and some is actually harmful. The question is: Can we rethink educational practice to develop more and better ways to assess learners, then develop improved ways to use time, materials, intentions, and methods that we call teaching?

The evidence collected in this research documents the fact that teachers and others in schools worked hard – very hard – to help students who were at risk, but those efforts were often ineffective.

Even so, never did as many as 50% of the students in a school who were at risk on a specific item get special help; it was always fewer than half who got assistance of any kind.

In one sense, teachers and schools were making mighty efforts to help those who were at risk. In another sense, they were not even beginning to make a dent on the problem. Their heart was in the right place – teachers helped students who were at risk more than students who were not at risk – but most students who were at risk were not provided with special efforts of any kind, and most students who were not at risk got even less assistance.

Is the glass half empty or half full? Reflecting on the data, and reviewing our understanding of what teaching is and how teachers teach, we conclude that teaching must be examined from a different point of view.

A common characteristic of many programs for students at risk was their "separateness." Students were pulled out or assigned to a separate group or

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separate room for special help.

The explicit intention of separate programs is to concentrate efforts to maximize impact; to make a difference with specialized assistance, materials, or people to enable students who are at risk to get up to par or back to normal or even with their peers. The stated purpose of the separation is to narrow the range of differences among students to a manageable level and to bring to bear the specialized materials or methods that will be helpful to at-risk students.

The implicit intention is to separate risk students so normal students in the regular program can proceed and not be held back by students who are at risk.

Schools have a long history of attempting to cope with individual differences through organizational arrangements, primarily grouping of one kind or another. Grouping children (like with like, or what is usually referred to as homogeneous grouping) has often been put forth as an appropriate and effective means to narrow the range of individual differences within classrooms.

In schools that separate students at risk from those not at risk, what happens is a double-edged phenomenon in which students are pulled out of the regular program and placed in a special program, then, after a period of time, assigned back to the regular program again. And that is always the stated goal – to get students back into the regular program.

Teachers are dealt with the same way. They are pulled out of the regular classroom to work with at-risk students in special classrooms, then – sometime later – they get a chance to go back to the regular classroom.

Separation is seen as special treatment for both students and teachers. Further, a return to the regular classroom is always seen as a reward for having done well, for both students and teachers.

The practice of separation assumes that something different and better happens in the separated situation that does not (or cannot) take place in the regular classroom.

Retaining children in grade is actually another way of grouping students by achievement, so students who are "behind" their peers will be able to "keep up" with those who are a year younger, in the grade behind.

Separating students according to risk is no more effective and no more appropriate than separating students according to intelligence, race, sex, or probably even age.

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9

DEVELOPING A SENSE OF RESPONSIBILITY

During the course of this research, it became apparent that some teachers and others in the schools have adopted attitudes and ways of working with at-risk students that negate generally held notions about helping students learn to assume responsibility for personal actions. Wherever we went we heard reference to the idea of "accountability," and much of what we read reinforced the notion that accountability was a factor in teachers' and administrators' efforts with students who were identified as being at risk in one way or another.

Accountability in education is not a new idea. More than 100 years ago the British Parliament approved a Payment by Results plan for schools in Victorian England; teachers were paid according to students' achievement. The law was eventually repealed because of negative reactions from all concerned. About 25 years ago the term accountability began to show up in the educational literature and as an agenda item on programs for policy makers and educators in the United States. Hundreds of references have appeared since the middle 1960s.

To be held accountable means to be answerable, to be responsible. To be responsible means to be legally or ethically accountable for the care of another; capable of making moral and rational decisions on one's own, and therefore answerable for one's behavior; capable of being trusted or depended upon; reliable; required to render account.

Responsibility, of course, can be assigned, assumed, or exercised. And therein lies the rub. This question eventually arises: Are teachers accountable for students' learning?

WHAT DOES ACCOUNTABILITY MEAN?

One of the statements frequently made about accountability goes something like this: "Teachers must be held accountable for students' learning." That is not the only way people talk about accountability in education, but the sentence summarizes what many people mean when they refer to accountability in education. But what does the statement imply?

For example, what does learning

mean? Learning has always been defined in terms of behavioral change. "Students learn," we say, "when they think differently, feel differently, or act differently as a result of the experience that has been provided by the school."

If learning means behavioral change, and if teachers are accountable for students' learning, then teachers must be held accountable for what their students do – in the classroom, on achievement tests, on the playground, and in the halls. It means that teachers are responsible for their students' behavior.

Two problems emerge from the notion that teachers are responsible for their students' behavior: one problem is legal and the other is psychological.

First, the legal problem. If teachers are responsible for their students' learning, then, by definition, students are not responsible for what they do. Such a notion is antithetical to the whole history of western civilization, at least since the Greeks: individuals are responsible for their own behavior.

Even parents are not responsible for their childrens' behavior. If a child burns a house down or assaults another person, for example, the child is accountable, not the parent. If parents cannot control a child, that child may be removed from the home, but if a child does wrong, the child is punished by the state. In legal terms, the child is responsible for what he or she does, not the parent. Los Angeles and several other communities recently adopted ordinances that hold parents responsible for their children's behavior in gang-related activities, but those laws have been vigorously contested in the courts.

To argue that teachers must be held accountable for students' learning is to argue that teachers are responsible for what their students do. Such an argument absolves students of responsibility for their own actions, and that leads to the second problem described above: the psychological one.

Psychologists use the phrase *locus of control* to depict one aspect of learned behavior, and they describe that behavior as internalized or externalized locus of control. Nobody is born with an internalized locus of control; nobody is born with an externalized locus of control. Locus of control is always learned – at home, on the playground, in the school, and from interactions with peers and others. Locus of control is learned behavior.[95]

Those who acquire an internalized locus of control evidence what might be described as a can-do attitude.[96] They feel on top of things. They are in charge of their own lives.[97] They believe that they can make a difference; that what they do counts; that they can influence events or circumstances.[98] Such people have internalized control; they are self-disciplined, self-motivated, and self-controlled.

Those who acquire an externalized locus of control, on the other hand, feel that they are not in charge of their own lives; that what they do does not count.[99] They think that they cannot make a difference; they cannot influence events. They think other people or external forces are moving them hither and yon; they lack control over their own lives.[100] "They made me do it. It wasn't my idea. It's their fault." Such persons are fatalistic, in the main.[101] They have learned to vest control of their life in things and people external to themselves.

If teachers accept the notion that they are accountable for their students' learning, then teachers will be forced by circumstances and logic to do things that foster development of an externalized locus of control on the part of their students rather than an internalized locus of control. Teachers will insist that students "do as they are told" rather than "think for themselves." Students will not be encouraged or even allowed to think. If they think, for example, they may think thoughts that teachers do not want them to think. Thus teachers will be driven to control students' behavior: what students think, what they say (in classroom discussions and on examinations, for example), and what they do. Such teaching will lead to the development of dependent rather than independent student behavior, the exact opposite of that which thoughtful educators and non-educators agree ought to be encouraged.

Policy makers in education sometimes argue that "teachers must be held accountable for students' learning." If one asks legislators or school board members, for example, "Do you think teachers should be held responsible for what their students do in school?" many will say yes.

If one pressed that notion further by asking, "If you think teachers should be responsible for their students' behavior, do you think policy makers should be responsible for their constituents' behavior?" Every policy maker would immediately respond with an emphatic "No"!

"Well," one might continue, "what should policy makers be responsible for?" Most would immediately respond with "I am responsible to my constituents for my own behavior. I am responsible for what I do."

And that is right. Each person is accountable for his or her own behavior, but not for what other people do. Thus, teachers must be held accountable for what they do as teachers, but not for what their students do.

Teachers are responsible for teaching – for doing anything and everything they can to help their students learn – but teachers must not be held accountable for students' learning. Students must be held responsible for their learning, but that responsibility cannot simply be assigned to them by teachers. Teachers are responsible to help students learn how to assume responsibility, how to find and use information, how to study, and how to develop interests, acquire skills, and promote the development of positive attitudes toward learning and life, but teachers must not assume responsibility for students' learning or for what their students do. Such actions promote the development of personal attributes on the part of students that lead to the attainment of a goal that is the exact opposite of what is being sought – an externalized locus of control rather than an internalized locus of control. The results realized will actually negate the ends pursued and defeat the purpose of schools and schooling.

In the next section, we examine the idea of helping students at risk assume responsibility for their own learning by exploring a logic of teaching that may be helpful to those who work with at-risk students in schools.

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HELPING STUDENTS AT RISK

This section will outline concepts and procedures to help teachers help at-risk youth move from problem-oriented ways of thinking and living and working to solution-oriented ways of thinking and living and working.

To this point, we have described what is. From this point forward, we will outline what ought to be, but we will continue to lean on empirical considerations.

The word *empirical* means both experimental and experiential. The characterization of at-risk youth set forth earlier is based on observation and experimental fact – what is. Our suggestions about how to help at-risk youth are also empirical, but the suggestions are based more on experiential evidence than experimental fact.

Four actions are required to help students at risk:

1. understanding
2. caring
3. cultivating a sense of responsibility
4. nurturing academic achievement and skills

Further, these endeavors must be practiced in the sequence specified. Understanding must precede caring. Caring must come before developing a sense of responsibility. And fostering a sense of responsibility in students at risk must come before helping youngsters acquire academic knowledge and skills. The logic of helping is important.

Understanding

Teachers must understand, as best they can, the multi-faceted nature of the problems that confront students at risk every day. For example, what does it mean to live in a home filled with conflict and tension? What does it mean to go back to an empty house day after day? What does it mean to live with only one parent who is struggling to make ends meet? What does it mean to live in a neighborhood where violence is commonplace, alcoholism is rampant, unemployment is everywhere, and bad examples abound? What values are acquired? What anxieties are fostered? What happens to one's sense of self-esteem?

What does it mean to leave school at the end of the day and go home to a house without books, to parents who do not believe in learning as a way of solving human problems, to brothers or sisters who have already dropped out of school, to peers who are into drugs, to a local culture that supports skipping school, and to a noisy room filled with television, beer, and family brawls?

Is emotional development blunted? Are a youngster's feelings about self and others comprehensible? How are personality development and character structure affected by such realities?

What happens to the sensory modalities of a youngster who experiences chaos and jangling noise hour after hour at home? What happens to the language development of a child who is yelled at with such directives as: "Now!" "You heard me." "Do it!" "No!" If complete sentences are a rarity, rational discourse is unheard of, and incomplete sentences, expletives, and explosive pronouncements are commonplace, how will such a milieu affect a child's vocabulary development, thought processes, and feelings about language? Understanding these things is important.

Teachers who want to help students at risk must be more than aware of such facts of life. They must understand what it means for a child to leave school and go into such a house and such a neighborhood day after day – and call that "home." Teachers must understand how the continual immersion in such an environment affects a child's belief system and his or her motivation to learn. Children cannot escape their immediate surroundings. Teachers who deplore such conditions without fully understanding how the conditions affect a youngster's emotional, cognitive, and personality development are not worthy of the title teacher.

Caring

Children who grow up in circumstances that contribute to their being at risk need teachers who truly care about them. If a child's physical needs and safety needs and belonging needs are not met, no amount of attention to academic needs will prove helpful. Children at risk need care and love and acceptance; they need positive and unconditional regard.

Positive and unconditional regard, as Carl Rogers defined the term, implies acceptance of one person by another, without conditions.[102] In teaching, acceptance means acknowledgment and recognition of the worth of a student, just because the student exists. Acceptance does not imply approval of what the student does or agreement with that person's beliefs or values. It means that a positive and helping relationship is rooted in a belief in the inherent worth and value of the student as a person.

Unconditional regard means nonjudgmental, without conditions, no strings attached. The student is accepted simply because he or she exists. Students are not accepted on the condition that they do thus and so. They are not valued if they follow instructions or behave in certain ways. They are valued and accepted because they are.

Much of the activity of teaching requires teachers to be judgmental, to evaluate according to criteria, to approve or disapprove of thought processes or demeanor according to predetermined and explicit standards of right and wrong, good and bad, acceptable and unacceptable.

Caring requires teachers to accept students because they are individual human beings, not because they behave in the right way or say the right thing or otherwise evidence appropriate behavior. Teachers who say, in effect, "I will acknowledge your existence and accept you on the condition that you do what I think is right and proper" are not exhibiting positive and unconditional regard. Those teachers are not caring, as the term is defined here.

Teachers have an obligation to help students develop and achieve, and many teachers would argue that they care for their students when they insist that those students meet high levels of achievement. That is one kind of caring. It is not caring in the way that term is being defined here, however. That is a conditional caring. "I will approve of you, if you meet my standards and follow my instructions" is very different from "I accept you because you are."

Children at risk need teachers who exhibit positive and unconditional regard. They need teachers who care about them as human beings, regardless of where they live or what their parents do or how they look or act each day. Students at risk have psychological needs that must be met which transcend those that can be realized on a conditional basis. The implicit contract of conditional relationships ("I will accept you, on the condition that you meet my standards or my expectations.") is beyond the capacity of many students who are at risk. They need someone who cares about them, who accepts them, who honors their uniqueness and their individuality, just because they exist.

Cultivating a Sense of Responsibility

Students at risk must learn to assume responsibility for who they are and what they do. They must learn to take charge of their own lives, to get on top of things. Students at risk must develop and exhibit an internalized locus of control.

Locus of control is a phenomenon in human behavior that psychologists are concerned about and study. Those who have an internalized locus of control assume responsibility for their own actions. Such persons assume that what they do makes a difference. They feel that they are important, they are worthwhile. They feel able to respond.

On the other hand, people who have developed an externalized locus of control feel that other people are in charge of their life, that what they do does not make a difference. They think that forces in the environment – events, circumstances, other people – control their lives. They do not feel in charge of who they are or what they do. They are fatalistic. They believe whatever will be will be. They neither feel responsible nor assume responsibility for themselves or their actions. They are unable to respond as fully-functioning human beings.

Many students at risk have been buffeted by parents, the culture, and the school to the point that they have developed an externalized locus of control. Such youngsters neither understand the advantages of being responsible nor know how to develop the sense of personal responsibility that would assure them of success. They lack confidence and experience in assuming responsibility for their own lives; they may even cop out psychologically and argue that "It's not my fault. They made me do it." That kind of thinking must be changed.

Developing a sense of responsibility involves six things:

- understanding and accepting one's own abilities and strengths
- accepting one's uniqueness
- believing in the importance of doing more than is expected
- believing in the importance and fun of behaving responsibly
- understanding the power and possibilities inherent in exercising choice
- making intelligent decisions

First, their strengths. Almost every person has many strengths, even those who are seriously at risk. They can see and they can hear. They can walk and talk, think and feel, and they can relate to other people and to things. They can play, work, move about, and learn. They already have most of the attributes they need to do almost anything they want to do. They have abilities and strengths.

Second, their uniqueness. Every person is unique. Genetically, there are no two people in the world who are alike, except identical twins, of course. Experientially, every person in the world is different from every other person who ever was or ever will be. There are no two people who are alike. Different people can share language and experiences, but uniqueness means that one's abilities, strengths, and experiences enable one to create a personalized set of circumstances; to achieve whatever one wants. Each person is unique.

Third, doing more than is expected. If young people can learn to believe in the importance of doing more than is expected, they will have mastered a significant secret to success in life. Giving of oneself, going the extra mile, helping other people – all these things evoke respect and approval from peers, from superiors, and from subordinates.

Fourth, believing in the importance and fun of behaving responsibly. Being in charge of one's own life is more fun and more exciting than doing somebody else's bidding. Behaving responsibly brings excitement and enthusiasm into the life of a learner.

Fifth, understanding the power and possibility of exercising choice. Personal power is rooted in the opportunity to be in charge of one's own existence, one's own schedule, and one's relationships with others. Choosing is the ultimate human behavior, and making intelligent choices – the essence of a democratic society – means simply that the individual can think things through, reflect, and then respond appropriately and effectively. Choices determine both the goals that people pursue and the intensity with which they pursue those goals, and making personal choices that are helpful to oneself and other people is the essence of responsibility. Understanding these things fuels motivation and helps students move toward responsible behavior.

Sixth, making wise decisions (exercising choice in intelligent ways) gives people a sense that what they are doing is important as well as giving direction and meaning to their lives. Being responsible means, simply, assuming responsibility for one's own actions: setting goals, working to achieve those goals, evaluating the efforts, and starting all over again.

In attempting to help students at risk, adults often deny young people opportunities to assume responsibility for their own lives. Some think that teachers must be responsible for students' learning, not realizing that if students do not assume responsibility for their own learning, then learning will be diminished.

Helping people assume responsibility is different from assigning responsibility. The assumption of responsibility must be fostered. If students feel responsible for who they are and what they do, then and only then will significant learning and motivational development occur. Teachers must foster a sense of personal responsibility within students; they must cultivate the development of an internalized locus of control.

Nurturing Academic Achievement and Skills

Teachers are generally skilled at helping students develop cognitive understandings and acquire skills in different academic areas. The problems which confront teachers who work with students at risk, however, is that, if academic efforts take precedence over meeting students' psychological and social needs, the academic efforts will either miss the point or fail.

A child who lives in a home in which the parents argue a lot and the father drinks excessively may be a poor reader, but emphasizing instruction in reading skills will not solve that student's reading problems. The difficulties in reading are simply symptomatic of more pressing problems in that child's life.

Attention to academic concerns must follow emphases on understanding, caring, and fostering responsibility.

Teachers must understand. They must care. They must help the student assume responsibility for his or her own life. And then they must help the student learn – more, better, more effectively, and more enjoyably. But attention to academic concerns must follow emphases on understanding, caring, and fostering responsibility. Those are more basic, more pressing needs.

SUMMARY

Students differ in terms of their own personal sense of responsibility for learning. Further, their sense of responsibility is affected by many factors in their lives – age, parental practices, instructional practices, achievement, influence of peers, handicapping conditions, restrictions in the environment. But all people want to be in charge of their own lives. Teachers can help students learn to assume more responsibility, if teachers understand the power and importance of responsibility in learning and if they employ methods and materials to enhance the development of responsibility among children in school.

A common interpretation of accountability seems to encourage teachers to relate to students in such a way that student responsibility for learning is not enhanced, but denied. Teachers are responsible for teaching. Students are responsible for learning. Rhetoric aside, urging teachers to assume responsibility for students' learning will discourage teachers to work in ways that foster the development of an internal locus of control in students.

Understanding first, caring second, nurturing the development of responsibility third, and then emphasizing academic skills is a logic of teaching that must be considered.

10

HOLDING POWER OF THE HIGH SCHOOL

We began this project with an assumption: children are at risk if they are likely to fail at school or fail at life. Youngsters who fail at school are not likely to graduate from high school, and graduation from high school is important.

Over the years there has been steady pressure in America to reduce the dropout rate in high schools. In the middle of the Great Depression, teachers and administrators were admonished to "keep young people in school through graduation." Following World War II, there were efforts to encourage students to stay in school. President Kennedy described the dropout problem in his State of the Union Message in 1963 as "a waste we cannot afford" and initiated a dropout prevention program later that year. In 1989, the nation's governors and President Bush established six goals for American education, one of which was to increase high school graduation rates to 90% by the year 2000.

Many people today talk about the high dropout rate in America. Actually, the dropout rate is lower now than it has ever been, but our expectations have changed. In the early 1900s, fewer than 10% of young people successfully completed high school in 12 years; today, more than 80% finish 12 years of school during that period of time. And others complete work for the high school diploma (GED) after leaving school. America has steadily reduced the dropout rate every decade during this century, but the demands for educated citizenry have increased to the point that the rate of school leaving is still seen as too high.

Some of the pressure to get young people to finish high school is economic – it takes skilled people to function effectively in our economic system. Some of the pressure is cultural – we need well-educated people to participate intelligently in our form of self-government. Some is familial – you have to prepare yourself to get ahead and get along. Some people even argue that a poor education is better than none at all, or young people are better off in school than out of school.

Whatever the rationale, America wants its young people to finish high school, and, if possible, to go on to technical training or college. Education is important. Completing high school is seen as a must for everyone.

What is the dropout rate? What is the holding power of a high school? Dropout rate and holding power are different but related concepts. Students drop out of school. Schools hold students, if possible, through graduation.

The general public thinks of dropout rate as the proportion of students who started first grade in 1980, for example, but failed to graduate in 1992. School administrators generally define dropout rate as the percentage of students who quit school during any given school year. The Census Bureau defines dropouts as persons between the ages of 17 and 24 not enrolled in school who have not finished high school.

In the Phi Delta Kappa Study of Students At Risk, we originally conceptualized holding power as the proportion of first-time ninth-graders who graduated four years later, after accounting for those who transferred to another school, went to jail, or died. Each participating chapter was asked to calculate a holding power statistic for one high school.[103]

Calculating the holding power statistic for one high school required local researchers to identify, by name and identification number:

A. all first-time ninth grade enrollees in 1984
B. those who graduated in 1988
C. those who graduated before 1988
D. those who had transcripts sent to another school
E. those who went to jail
F. those who died
G. those who were still enrolled in school

After complete information had been obtained for every student who entered ninth grade at that school for the first time in 1984, the Holding Power Statistic was computed according to the following formula:

$$\text{Holding Power} = \frac{B + C + G}{A - (D + E + F)}$$

Using this process, data were obtained from 95 high schools across the United States. The holding power statistic for all 95 high schools was 81%.

In 1990, holding power was reconceptualized to take into consideration the reality of student turnover that characterizes many schools (students who transfer into as well as out of a school). The original conceptualization accounted only for students who entered ninth grade for the first time in the fall of 1984 and transferred out or were accounted for, but students who transferred into a high school in the 10th or 11th grades, for example, were ignored.

Holding power was redefined in 1990 to include all students who entered as first-time ninth-graders or transferred into the high school after October of the ninth grade, thus reflecting a more realistic picture of any school's operation. A follow-up study was done in 15 high schools in six states to test the practicality of the new definition, and the principal in each school was asked to evaluate the concepts and processes involved. Further, holding power was related to gender, ethnic background, and course of study. The holding power of these 15 schools was 82%.[104]

Feedback from participants who collected data in 1988 and those who collected data in 1990 was basically the same: holding power is an important concept. It needs to be made operational. If it works, it will bring standardization and agreement to the field. There is no agreement now on what holding power or dropout rate means. However, it is very difficult to go back and collect data on every student who started ninth grade four years ago. Can't you develop a system that would start with ninth-graders, then follow them through four years of school?

What became obvious in studying feedback from the first two studies was that most schools were not good at tracking students by name. Record keeping may be formalized and specific within a given building, but there is seldom precise information about students who move to or from another city or state. Graduation from high school involves requirements, course credits, and the like, and the record system is better at the high school level than at lower levels, but even at the high school level, general practice involves accounting to the state for the number of students enrolled at each grade level on a given date, not accounting for students by name, except within the building.

Given that kind of information, the study team decided to approach the idea from a different perspective. Determining holding power is basically an accounting problem. Could we devise an accounting procedure that would provide accurate information with minimal difficulty for administrators and office personnel?

The United States Army employs the morning report to account for personnel. Prepared every day by a first sergeant, the morning report is a precise accounting for every person assigned to a unit, usually a company. If Private John C. Jones, 15544213, went on sick call and was put in the hospital, the morning report would note the soldier's name, rank, serial number, and assignment to the hospital. If Sergeant William B. Smith, 31674889, went on 10-day furlough, the morning report would note that. If Private Robert G. Johnson, 14467810, was killed in action, the morning report would provide that information. Prepared every day, the morning report is a daily accounting of precise information for every soldier in every unit in the U.S. Army.

Schools do not have such an accounting mechanism to keep track of students today, strange as that may seem. Many schools have elaborate computerized operations to maintain attendance and school records, but there are no standardized definitions or procedures for keeping track of students by name or identification number that cross school district boundaries or state lines. The result: definitions of dropout rate and holding power vary from district to district and state to state.

Many researchers have identified this problem before. MacMillan and others,[105] Barber and McClellan,[106] Williams,[107] Hammack,[108] LeCompte and Goebel,[109] and Morrow,[110] for example, have all raised questions about the definitions and procedures currently used by schools and government agencies to identify dropouts.

Drawing from our own experience and from what others have reported, we shifted our focus from research to conceptual and technical development. During 1991, a team of researchers, administrators, and computer analysts developed the Holding Power Index, a computer software program to determine the holding power of a high school.

The program was designed to enable educators to collect information about students who enter a school, then follow those students through their years in school. Theoretically, the accounting process could begin at any age or grade level; in practical terms, it would probably be easiest to begin with first year high school students.

The Holding Power Index is based on the idea of specifying and following a cohort group over time (for example, the class of 1995). Without reproducing the entire documentation here, some of the ideas are outlined below.[111] Persons interested in receiving more information about the program are encouraged to contact Phi Delta Kappa, Center for Dissemination of Innovative Programs, P.O. Box 789, Bloomington, Indiana 47402.

There were three purposes behind the development of the computerized Holding Power Index:

- to standardize the definition of holding power
- to simplify the task of accounting for students
- to generate information about holding power in relation to gender, race, and curriculum offerings

Four functions can be accomplished with the software program:

- create a file of new students (ninth-graders)
- add students who transfer into that cohort group
- account for students who leave that cohort group
- calculate the holding power index of the school

The program is available for MS/DOS or Macintosh computers, and the hope is that schools that use the software will agree to participate in a consortium to share data with other schools in an attempt to learn more about the effect of school organization and curricular offerings on holding power in relation to gender and ethnic background.

Use of the Holding Power Index to monitor students' progress through school toward graduation is supported by the National Association of Secondary School Principals, American Association of School Administrators, Council of the Great City Schools, and the Council of Administrators of Special Education.

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CHAPTER 10

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APPENDIX A

PROBLEM AND PROCEDURES

Phi Delta Kappa is a professional organization in education. There are about 140,000 members in 674 chapters around the world. Most of the chapters are in the United States. Governance of the organization is vested in a board of directors, which meets twice each year, and a Biennial Council with delegates from all chapters, which meets in alternate years. Daily operations are assigned to a professional staff.

Phi Delta Kappa's Constitution describes the basic mission of the organization:

> *The purpose of Phi Delta Kappa shall be to promote quality education, with particular emphasis on publicly supported education, as essential to the development and maintenance of a democratic way of life. This purpose shall be accomplished through the genuine acceptance, continuing interpretation, and appropriate implementation of the ideal of high quality leadership through research, teaching, and other professional services concerned with and directed to the improvement of education, especially publicly supported and universally available education. (Article 1, Section 3)*

The commitments are to quality education and public education. But achieving quality in public education has become an issue in recent years. Some people have urged the privatization of public schools. Others have pressed for more testing and accountability. Still others have advocated a narrowing of programs, a return to what schools used to be. Disagreement exists about both the ends and means of public schooling.

Issues in education are matters of public concern. The mere existence of critical issues usually means difficulties for professionals. Progress toward agreed-upon goals is often stymied. Debate about resource allocations is common. Assumptions are challenged. Motives are questioned.

Committed to the idea of trying to stay on top of educational issues, Phi Delta Kappa established an issues board in 1986 to identify, monitor, and coordinate the organization's response to developing issues and problems in the field. Following consultation with knowledgeable people around the country and the officers of Phi Delta Kappa, a list of 14 issues thought to be important to teachers and administrators was developed during the summer of 1987.

In October 1987, the list of issues was presented to delegates at PDK's 41st Biennial Council in Louisville, Kentucky. Delegates were asked "How critical each issue is likely to be by 1990 – for society and for the profession – and how much attention will each issue demand?" Each of the 14 issues was described in about 30 words, and delegates were asked to respond according to a five-point scale, ranging from "very critical, will demand a lot of attention" to "not critical at all, will demand no attention."

In addition to the list of 14 issues, the possibility of a collaborative research project by chapters was described in detail. One paragraph from that description follows:

> *Working together, many chapters of Phi Delta Kappa could accomplish a significant study of a significant issue in education. Such a project would require each participating chapter to establish a research team, to undergo a training program, to collect data, and to transmit those data to a coordinating committee by the dates specified.*

After reading the statement above, delegates were asked to respond to this question: "Do you think your chapter would be interested in participating in such a project?"

A total of 808 usable responses were collected from the delegates in Louisville. There were 635 chapters represented, each with a delegate and some with alternate delegates.

Responses to each of the 14 issues were summarized for all 808 persons completing the issues questionnaire, and the number of yes and no responses to the question about participating in a collaborative research project were totaled.

THE PROBLEM

Four issues were identified by respondents as likely to be especially critical by 1990:

1. at-risk/neglected/abused students
2. changing demographic factors
3. public support and confidence in education
4. improving the effectiveness of schools

In addition, 80% of the respondents indicated "Yes, we would be interested" in the possibility of becoming involved in a collaborative research project with other chapters on one or more of these issues.

On the basis of these responses, a proposal was developed to involve chapters of Phi Delta Kappa in a study of students at risk, with special attention to the other three top-ranking issues. The proposal was approved by the Phi Delta Kappa Board of Directors in January 1988. The board made funds available for up to 100 chapters to collaborate in a research effort. A committee of researchers was appointed in February to conceptualize and coordinate the study.

The proposal outlined a project designed to do two things:

1. generate good data about the four issues described above; and
2. generate enthusiasm, participation, and a sense of accomplishment in research among Phi Delta Kappa members in up to 100 chapters.

In February 1988 a letter was mailed to the president and research representative of every chapter of Phi Delta Kappa inviting them to apply before April 15 to participate in the project. In mid-March a follow-up notice was mailed to every officer in every chapter in Phi Delta Kappa in a general mailing that included other materials.

A total of 240 chapters submitted proposals – more than one third of all the chapters in Phi Delta Kappa – to be part of this collaborative research effort, including a willingness to pay up to $300 for hotel and meal costs as part of the obligation of participation.

A committee of Kappans evaluated the proposals. In May 1988, 100 chapters were notified of their acceptance into the project, and 140 chapters were notified that they were not accepted.

The coordinating committee met three times between March and June 1988 to conceptualize the study, to develop instruments and procedures that chapters would use to collect data, and to plan activities and develop training materials for chapter representatives.

The committee began with a general definition of risk: students are at risk if they are likely to fail at school or fail at life. A youngster who gets straight Fs on his or her report card is obviously at risk. A student who attempted suicide is also very much at risk.

Using this general definition as a point of departure, the committee reviewed 114 research reports to identify indicators or instances of risk. From this review, 45 factors were specified that other researchers said contributed to, were related to, or caused risk among students in school.

Four questions were posed to provide direction for this study:

1. Who is at risk?
2. What are they like?
3. What is the school doing to help these students?
4. How effective are these efforts?

The theoretical rationale presumed that the student would be the focus of the study, but five factors or sets of conditions impinged upon the student and affected the extent to which the student was or was not "at risk":

- family
- peers
- school
- life events
- community

The focus was to be on students, but all data would be obtained from professionals by professionals. Student data would be collected from teachers and counselors who knew each student well and had access to students' records, but students would not be queried or observed directly, except in case studies.

THE PROCEDURES

To answer the four questions posed above, a plan was developed for chapters to collect data in schools in their own geographic area using common definitions and uniform procedures established by the coordinating committee.

In effect, each chapter was asked to do various jobs, each of which involved certain tasks, which in turn established a time line for completing the study. Each participating chapter was directed to complete these 13 jobs by the dates indicated:

1. Form a research committee (October 1988)
2. Select three schools (October 1988)
3. Go through extensive training (October 1988)
4. Interview principals (December 1988)
5. Survey teachers (December 1988)
6. Determine "holding power" (December 1988)
7. Write narrative report (December 1988)
8. Collect information about students (December 1988)
9. Do a case study of one student (February 1989)
10. Do at least one optional project (February 1989)
11. Do further analyses of data (August 1989) optional
12. Discuss data at district-level (May 1989)
13. Disseminate the research results

Detailed instructions to chapters about the tasks required for each job were prepared and published in a *Manual of Instructions.*[1] Those who are interested in a complete description of the methodology are referred to that document. Detailed instructions for Job 2 (selecting schools) and Jobs 4, 5, and 8 (interview principal, survey teachers, collect information about students), are included in the appended materials of volume 2 of this report, (*Assessing and Predicting Risk Among Students in School*).[2]

In August 1988, descriptions of the first two jobs were mailed to each participating chapter. Local coordinators were directed to form a committee and select three schools before October 1st. In September 1988, an airline ticket and the *Manual of Instructions* were mailed to participating chapters.

During the first week in October 1988, 100 researchers representing participating PDK chapters convened in Kansas City for three days of training. Training was conducted by members of the coordinating committee who had conceptualized the study, under the leadership of an outside consultant, Dr. Roy Forbes.

Training sessions consisted primarily of intensive instruction in how to do each job, as detailed in the *Manual of Instructions*. All training took place in small-group settings (less than 15 people), except for clarifying sessions, when the entire group assembled. The person responsible for training participants in a particular job was the person who had conceptualized that portion of the manual.

Following the training, participants returned to their communities and accomplished most of the data collection between October 10 and December 15, 1988.

The details of data collection and data analysis are described in volume

2 of this report (*Assessing and Predicting Risk Among Students in School*). Briefly, 85 of the 100 chapters provided reasonably complete sets of data from 276 schools in 85 communities in more than 40 states.

In all, information about 21,706 students, 9,652 teachers, and 276 principals was collected. In addition, 65 case studies were completed, and holding power information about 27,250 students who were followed from grade 9 through grade 12 in 95 high schools was analyzed. This information was subjected to various statistical analyses: descriptive analysis, factor analysis, item analysis, regression analysis, comparison of means analysis, correlational analysis, and discriminate analysis.

The original instrument used to collect data about students (see appendix B, volume 2) consisted of 45 items that previous research suggested were related to risk. During the process of data analysis, that 45-item instrument was reduced to 41 items, then to 34 items, and finally to a 24-item scale (see appendix C, volume 2). Most of the analyses reported here were accomplished using the 34-item instrument.

Data were analyzed between January 1989 and November 1991, and several publications were prepared.[3] This volume, *Growing Up Is Risky Business, and Schools are Not to Blame* (*Final Report – Phi Delta Kappa Study of Students at Risk, Volume 1*), and its companion volume, (*Assessing and Predicting Risk Among Students in School* (Volume 2) constitute the final report of this research project.

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2. Jack Frymier, *Assessing and Predicting Risk Among Students in School* (Bloomington, Ind.: Phi Delta Kappa, 1992), chapter 2.
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APPENDIX B

RISK AND PERSONAL PAIN COMPARISONS

The information about 21,706 students provided by teachers and counselors to researchers on the 45-item scale that had been developed from a review of 115 research studies was subjected to factor analysis. Five factors emerged:

- personal pain
- academic failure
- family tragedy
- family socioeconomic situation
- family instability

As a result of logical and empirical considerations, the 45-item scale was reduced to a 34-item scale. Eventually, some of the 34 items were combined to produce a 24-item scale, but the results presented here were based on multiple analyses of the 34-item scale.

The description that follows organizes the discussion around each of the items associated with one of the five factors cited above. Students were separated (evidence of risk versus no evidence of risk) on one of 10 items associated with the personal pain factor, then compared on all of the other items on the scale.

PERSONAL PAIN

The 10 items that comprised the personal pain factor were:

- suspended from school
- attempted suicide
- involved in a pregnancy
- student sold drugs
- student used drugs
- family used drugs
- used alcohol
- parent alcoholic
- student arrested
- student abused

Reading about these comparisons is slow and laborious, but the evidence is overwhelming: students at risk on one item were much more likely to be at risk on the other items than students who were not at risk on the first item. To extend the comparison, the narrative analysis below parallels tabular descriptions, presented here and in volume 2 (appendix D, tables 10 through 19, and in appendix G, charts 1 through 34).

Table 10

Comparison of students who were suspended with students who were not suspended on various risk items

(N = 1,290 and 20,416)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	100	0		
Attempted suicide	4.0	.6	176.83	.001
Involved in pregnancy	3.4	.4	194.69	.001
Student sold drugs	5.4	.3	580.64	.001
Student used drugs	19.9	1.8	1403.93	.001
Family used drugs	14.1	2.8	467.61	.001
Student used alcohol	25.0	3.3	1289.29	.001
Parent alcoholic	13.9	3.0	415.03	.001
Student arrested	10.2	.7	846.49	.001
Student abused	7.4	1.5	225.53	.001
Low grades in school	44.3	11.4	1127.55	.001
Failed courses	35.4	7.3	1178.55	.001
Overage in grade	35.7	15.0	385.42	.001
Retained in grade	36.0	12.9	534.49	.001
Excessive absences	27.4	5.6	901.59	.001
Low self-esteem	31.2	11.2	450.19	.001
Referred special education	18.2	9.3	109.79	.001
Low reading scores	17.4	8.9	102.70	.001
Parent sick last year	9.0	3.7	86.49	.001
Parent died last year	1.8	.9	11.50	.001
Parent lost job last year	9.2	3.7	97.29	.001
Friend died last year	14.3	4.0	292.12	.001
Student ill last year	8.8	2.9	139.68	.001
Sibling died last year	.9	.5	2.42	
Father low-level job	23.3	16.5	40.7	.001
Father not high school graduate	18.1	7.1	207.73	.001
Mother low-level job	27.6	19.1	55.24	.001
Mother not high school graduate	19.9	7.6	241.09	.001
Parents' attitude negative	14.0	4.4	233.85	.001
Language not English	7.4	4.8	18.73	.001
Broken home	55.6	33.2	267.52	.001
Moved frequently	20.8	15.5	25.39	.001
Changed schools frequently	22.6	23.4	.47	
Parents divorced last year	10.2	6.6	23.71	.001

SUSPENDED FROM SCHOOL VERSUS NONSUSPENDED

- 4%* of the suspended students had attempted suicide, but 1% of those not suspended had attempted suicide;

- 3% of suspended students were involved in a pregnancy, but less than 1% who had not been suspended were involved in a pregnancy;

- 5% of suspended students sold drugs, but less than 1% of those not suspended sold drugs;

- 20% of the students suspended used drugs, but 2% of those not suspended used drugs;

- 14% of suspended students came from a family in which other family members used drugs, but 3% of those not suspended came from such a family;

- 25% of students suspended from school used alcohol, but 3% of students not suspended used alcohol;

- 14% of suspended students had an alcoholic parent, but 3% of those not suspended had an alcoholic parent;

- 10% of the students suspended had been arrested, but 1% of those not suspended had been arrested;

- 7% of those suspended had been physically or sexually abused, but less than 2% of those not suspended had been abused.

- In all, 44% of students who had been suspended had low grades in school, but 11% of those not suspended had low grades in school;

- 35% of students suspended failed courses in school, but 7% of students not suspended failed courses in school;

- 36% of the students suspended were overage in grade, but 15% of those not suspended were overage in grade;

- 36% of the students who were suspended had been retained in grade, but 13% of those not suspended had been retained in grade;

- 27% of the students who had been suspended had excessive absences from school, but 6% of students not suspended had excessive absences;

- 31% of the students suspended from school had low self-esteem, but 11% of students not suspended had low self-esteem;

- 18% of students who were suspended were referred to special education, but 9% of those not suspended were referred to special education;

- 17% of suspended students had low reading scores, but 9% of students who were not suspended had low reading scores.

- Exactly 9% of the students who had been suspended had a parent who was sick last year, but 4% of students not suspended had a parent who was sick;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 2% of the students who had been suspended had a parent die last year, but 1% of the students who had not been suspended had a parent die;

- 9% of suspended students had a parent who lost a job last year, but 4% of the students not suspended had a parent who lost a job;

- 14% of the suspended students had a friend who died last year, but 4% of the students who were not suspended had a friend who died;

- 9% of the students who were suspended were in an accident or seriously ill last year, but 3% of those not suspended were in an accident or seriously ill last year;

- 1% of the students who were suspended had a sibling die last year, and 0.5% of the students who were not suspended had a sibling die.

- Of the students who had been suspended, in 23% of the cases those students' fathers were unemployed or held an unskilled laborer's job, but in 17% of the cases of students who had not been suspended the father was unemployed or in an unskilled job;

- 18% of the suspended students' fathers had not graduated from high school, but 7% of the nonsuspended students' fathers had not graduated from high school;

- 28% of the suspended students' mothers were unemployed or worked in an unskilled job, but 19% of the nonsuspended students' mothers were in a similar situation;

- 20% of the suspended students' mothers had not graduated from high school, but 8% of the nonsuspended students' mothers had not graduated from high school;

- 14% of the suspended students' parents' attitude toward education was negative, but 4% of the nonsuspended students' parents' attitude toward education was negative;

- 7% of the students who had been suspended lived in a home in which English was not the language spoken, but 5% of the students who had not been suspended lived in such a home.

- In studying the home situation from which students came, 56% of the students who had been suspended lived with someone other than their real mother and real father, but 33% of the students who had not been suspended from school lived in such a home;

- 21% of the suspended students had moved frequently from house to house, but 16% of the students who had not been suspended had moved frequently;

- 23% of the students who had been suspended changed schools frequently, and 23% of the students who had not been suspended changed schools frequently;

- parents of 10% of the students who had been suspended were divorced during the last year, but the parents of 7% of the students who had not been suspended had divorced during the last year.

Table 11

Comparison of students who attempted suicide with students who did not attempt suicide on various risk items

(N = 176 and 21,530)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	29.5	5.8	176.83	.001
Attempted suicide	100	0		
Involved in pregnancy	6.3	.5	100.74	.001
Student sold drugs	5.1	.5	65.77	.001
Student used drugs	40.9	2.6	906.26	.001
Family used drugs	22.7	3.3	197.91	.001
Student used alcohol	46.0	4.3	690.91	.001
Parent alcoholic	23.9	3.4	209.03	.001
Student arrested	14.2	1.2	232.42	.001
Student abused	26.7	1.7	596.21	.001
Low grades in school	23.9	13.3	16.79	.001
Failed courses	26.1	8.8	64.23	.001
Overage in grade	21.6	16.2	3.79	
Retained in grade	23.9	14.2	13.31	.001
Excessive absences	26.1	6.7	102.29	.001
Low self-esteem	38.6	12.2	112.86	.001
Referred special education	15.3	9.8	6.15	.01
Low reading scores	8.0	9.4	.42	
Parent sick last year	24.4	3.9	190.01	.001
Parent died last year	4.0	.9	18.42	.001
Parent lost job last year	18.8	3.9	100.40	.001
Friend died last year	26.7	4.4	197.69	.001
Student ill last year	27.3	3.0	330.54	.001
Sibling died last year	2.8	.5	1.31	
Father low-level job	13.6	16.9	1.31	
Father not high school graduate	11.4	7.7	3.26	
Mother low-level job	15.9	19.7	1.55	
Mother not high school graduate	18.2	8.3	22.52	.001
Parents' attitude negative	8.5	5.0	4.58	.03
Language not English	7.4	4.9	2.32	
Broken home	57.4	34.4	40.81	.001
Moved frequently	27.3	15.7	17.51	.001
Changed schools frequently	30.1	23.3	4.53	.03
Parents divorced last year	18.8	6.4	39.53	.001

ATTEMPTED SUICIDE VERSUS NOT ATTEMPTED

- 30%* of students who had attempted suicide were suspended from school, but 6% of non-attempters were suspended;
- 6% of those who had attempted suicide were involved in a pregnancy, but less than 1% of those who had not made such attempts were involved in a pregnancy;
- 5% of those who had attempted suicide sold drugs, but less than 1% of those who had not made such attempts sold drugs;
- 41% of those who attempted suicide used drugs, but 3% of those who had not attempted suicide used drugs;
- 23% of students who attempted suicide came from a family that used drugs, but 3% of those who had not attempted suicide came from such a family;
- 46% of the students who attempted suicide used alcohol, but 4% of the non-attempters used alcohol;
- 24% of those who attempted suicide had a parent who drank excessively or was an alcoholic, but 3% of those who had not attempted suicide had a parent who drank excessively;
- 14% of the students who attempted suicide had been arrested, but 1% of the other students had been arrested;
- 27% of those who attempted suicide had been physically or sexually abused, but 2% of those who had not attempted suicide had been abused.
- Evidence indicated that 24% of the students who had attempted suicide had low grades in school, but 13% of those who had not attempted suicide had low grades;
- 26% of students who had attempted suicide failed courses in school, but 9% of students who had not attempted suicide failed courses in school;
- 22% of students who attempted suicide were overage in grade, but 16% of those who had not made such an attempt were overage in grade;
- 24% of students who attempted suicide had been retained in grade, but 14% of those who had not attempted suicide had been retained in grade;
- 26% of those who attempted suicide had excessive absences from school, but 7% of those who had not attempted suicide had excessive absences;
- 39% of the students who attempted suicide had low self-esteem, but 12% of non-attempters had low self-esteem;
- 15% of students who had attempted suicide had been referred to special education, but 10% of those who had not attempted suicide had been referred;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 8% of those who attempted suicide had low reading scores, but 9% of those who had not attempted suicide had low reading scores.

- Of the students who had attempted suicide, 24% had a parent who was sick last year, but 4% of those who had not attempted suicide had a parent who was sick last year;

- 4% of the students who attempted suicide had a parent die last year, but 1% of the students who had not attempted suicide had a parent die;

- 19% of the students who attempted suicide had a parent who lost his or her job last year, but 4% of students who had not attempted suicide had a parent who lost a job;

- 27% of the students who attempted suicide had a friend die last year, but 4% of those who had not made such an attempt had a friend who died last year;

- 27% of the students who attempted suicide were seriously ill or in an accident last year, but 3% of those who had not attempted suicide were ill or in an accident;

- 3% of those who attempted suicide had a sibling who died last year, but 0.5% of those who had not attempted suicide had a sibling who died.

- Among those students who had attempted suicide, 14% had a father who was unemployed or held an unskilled laborer's job, but 17% of those who had not attempted suicide had a father who was in a similar situation;

- 11% of those who attempted suicide had a father who had not graduated from high school, but 8% of those who had not attempted suicide had a father who had not graduated from high school;

- 16% of the students who attempted suicide had a mother who was unemployed or held an unskilled job, but 20% of the mothers of students who had not attempted suicide were unemployed or held an unskilled job;

- 18% of those who had attempted suicide had a mother who had not graduated from high school, but 8% of those who had not attempted suicide had a mother who had not graduated from high school;

- 9% of the students who attempted suicide had parents who held negative attitudes toward education, but 5% of the students who had not attempted suicide had parents who held similar attitudes;

- 7% of the students who had attempted suicide lived in a home in which English was not the language spoken, but 5% of the students who had not attempted suicide lived in such a situation.

- Concerning the family situation, 57% of the students who had attempted suicide lived with someone other than their real mother and real father, but 34% of those who had not attempted suicide lived in a broken home;

- 27% of the students who attempted suicide moved frequently, but 16%

of those who had not attempted suicide moved frequently;

- 30% of the students who attempted suicide changed schools frequently, but 23% of those who had not attempted suicide changed schools frequently;
- the parents of 19% of the students who attempted suicide divorced last year, but the parents of 6% of those who had not attempted suicide divorced last year.

Table 12

Comparison of students who were involved in pregnancy with students not involved in pregnancy on various risk items

(N = 124 and 21,582)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	35.5	5.8	194.69	.001
Attempted suicide	8.9	.8	100.74	.001
Involved in pregnancy	100	0		
Student sold drugs	6.5	.5	77.40	.001
Student used drugs	18.5	2.8	107.87	.001
Family used drugs	14.5	3.4	45.83	.001
Student used alcohol	32.3	4.5	216.41	.001
Parent alcoholic	15.3	3.5	49.13	.001
Student arrested	13.7	1.2	151.08	.001
Student abused	13.7	1.8	95.24	.001
Low grades in school	32.3	13.3	38.30	.001
Failed courses	33.9	8.8	94.94	.001
Overage in grade	33.1	16.1	26.11	.001
Retained in grade	36.3	14.2	49.34	.001
Excessive absences	33.9	6.7	141.32	.001
Low self-esteem	37.1	12.2	70.30	.001
Referred special education	13.7	9.8	2.15	
Low reading scores	16.1	9.3	6.67	.01
Parent sick last year	15.3	4.0	40.87	.001
Parent died last year	0	.9	1.15	
Parent lost job last year	14.5	3.9	35.86	.001
Friend died last year	24.2	4.5	109.18	.001
Student ill last year	17.7	3.1	64.73	.001
Sibling died last year	3.2	.5	16.59	.001
Father low-level job	16.9	16.9	.00	
Father not high school graduate	21.8	7.7	34.40	.001
Mother low-level job	30.6	19.6	9.60	.002
Mother not high school graduate	25.0	8.2	45.34	.001
Parents' attitude negative	13.7	5.0	19.78	.001
Language not English	8.1	4.9	2.65	
Broken home	59.7	34.4	34.74	.001
Moved frequently	32.3	15.7	25.34	.001
Changed schools frequently	29.0	23.3	2.25	
Parents divorced last year	19.4	6.8	30.68	.001

INVOLVED IN A PREGNANCY VERSUS NOT INVOLVED

- 36%* of those involved in a pregnancy were suspended from school, but 6% of those not involved were suspended;
- 9% of those involved in a pregnancy had attempted suicide, but 1% of those not involved had made such an attempt;
- 7% of those involved in a pregnancy sold drugs, but less than 1% of those not involved sold drugs;
- 19% of students involved in a pregnancy used drugs, but 3% of those not involved used drugs;
- 15% of those involved in a pregnancy lived in a family in which other family members used drugs, but 3% of those not involved in a pregnancy came from such a family;
- 32% of students involved in a pregnancy used alcohol, but 5% of those not involved used alcohol;
- 15% of students involved in a pregnancy had an alcoholic parent, but 4% of those not involved had a parent who drank excessively;
- 14% of the students involved in a pregnancy had been arrested, but 1% of those not involved had been arrested;
- 14% of the students involved in a pregnancy had been physically or sexually abused, but 2% of those not involved had been abused.
- A total of 32% of those involved in a pregnancy had low grades in school, but 13% of those not involved in a pregnancy had low grades;
- 34% of those involved in a pregnancy failed courses in school, but 9% of those not involved failed courses;
- 33% of those involved in a pregnancy were overage in grade, but 16% of those not involved were overage;
- 36% of those involved in a pregnancy had been retained in grade, but 14% of those not involved had been retained;
- 34% of those involved in a pregnancy had excessive absences last year, but 7% of those who were not involved had excessive absences;
- 37% of those involved in a pregnancy had low self-esteem, but 12% of those not involved had low self-esteem;
- 14% of the students who were involved in a pregnancy had been referred to special education, but 10% of those not involved had been referred;
- 16% of those involved in a pregnancy had low reading scores, but 9% of the students not involved in a pregnancy had low reading scores.

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- When we examine the data associated with family situation, we find that 15% of the students who were involved with a pregnancy had a parent who was sick last year, but 4% of those not involved had a parent who was sick;

- none of the students who were involved in a pregnancy had a parent die last year, but 1% of those not involved had a parent die;

- 15% of the students involved in a pregnancy had a parent who lost his or her job, but 4% of those not involved had a parent who lost a job;

- 24% of the students involved in a pregnancy had a friend who died last year, but 5% of those not involved in a pregnancy had a friend who died;

- 18% of those involved in a pregnancy were in an accident or seriously ill last year, but 3% of the students who were not involved were in an accident or seriously ill;

- 3% of the students involved in pregnancy had a sibling who died last year, but 0.5% of those who were not involved in a pregnancy had a sibling who died.

- On those items that related to the socioeconomic situation of the family, 17% of those involved in a pregnancy had a father who was unemployed or worked as an unskilled laborer, and 17% of those not involved in a pregnancy had a father who was unemployed or worked as an unskilled laborer;

- 22% of the students who were involved in a pregnancy had a father who did not graduate from high school, but fathers of 8% of those who were not involved in a pregnancy did not graduate from high school;

- mothers of 31% of those involved in a pregnancy were unemployed or held an unskilled laborers job, but mothers of 20% of those not involved were unemployed or held a similar kind of job;

- the mothers of 25% of those involved in a pregnancy did not graduate from high school, but 8% of those who were not involved did not graduate from high school;

- 14% of those involved in a pregnancy had parents whose attitude toward education was negative, but 5% of those not involved in a pregnancy had parents with negative attitudes;

- 8% of the students involved in a pregnancy lived in a home in which English was not spoken, but 5% of those not involved lived in a home in which English was not spoken.

- In all, 60% of the students who had been involved in a pregnancy did not live with their real mother and real father, but 34% of the students not involved in pregnancy did not live with their real mother and father;

- 32% of the students involved in a pregnancy moved frequently, but 16% of students not involved in a pregnancy moved frequently;

- 29% of students involved in a pregnancy changed schools frequently, but 23% of those who were not involved in a pregnancy changed schools frequently;
- the parents of 19% of those involved in a pregnancy divorced last year, but 7% of those not involved had parents who divorced last year.

Table 13

Comparison of students who sold drugs with students who did not sell drugs on various risk items

(N = 122 and 21,584)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	57.4	5.7	580.64	.001
Attempted suicide	7.4	.8	65.77	.001
Involved in pregnancy	6.6	.5	77.40	.001
Student sold drugs	100	0		
Student used drugs	82.0	2.5	2712.49	.001
Family used drugs	48.4	3.2	742.75	.001
Student used alcohol	78.7	4.2	1528.82	.001
Parent alcoholic	31.0	3.5	267.20	.001
Student arrested	38.5	1.1	1335.86	.001
Student abused	13.1	1.8	84.51	.001
Low grades in school	57.4	13.1	204.74	.001
Failed courses	50.8	8.7	263.70	.001
Overage in grade	36.9	16.1	38.65	.001
Retained in grade	42.6	14.1	80.50	.001
Excessive absences	45.1	6.7	278.61	.001
Low self-esteem	49.2	12.2	153.28	.001
Referred special education	19.7	9.7	13.51	.001
Low reading scores	20.5	9.3	17.80	.001
Parent sick last year	12.3	4.0	21.51	.001
Parent died last year	4.9	.9	21.78	.001
Parent lost job last year	12.3	4.0	21.95	.001
Friend died last year	26.2	4.5	130.88	.001
Student ill last year	19.7	3.1	106.97	.001
Sibling died last year	6.6	.5	82.07	.001
Father low-level job	22.1	16.8	2.43	
Father not high school graduate	16.4	7.7	12.87	.001
Mother low-level job	27.9	19.6	5.28	.02
Mother not high school graduate	23.8	8.2	38.27	.001
Parents' attitude negative	19.7	4.9	55.30	.001
Language not English	10.7	4.9	8.65	.003
Broken home	51.6	34.5	15.79	.001
Moved frequently	36.1	15.7	37.81	.001
Changed schools frequently	33.6	23.3	7.21	.01
Parents divorced last year	13.1	6.8	7.59	.01

STUDENT SOLD DRUGS VERSUS DID NOT SELL DRUGS

- 57%* of students who sold drugs were suspended from school, but 6% of students who had not sold drugs were suspended;
- 7% of those who sold drugs had attempted suicide, but 1% of those who had not sold drugs had attempted suicide;
- 7% of the students who sold drugs had been involved in a pregnancy, but less than 1% of those who had not sold drugs were so involved;
- 82% of those who sold drugs had used drugs, but 3% of those who had not sold drugs used drugs;
- 48% of those who sold drugs came from a family in which other family members used drugs, but 3% of those who had not sold drugs came from such a family;
- 79% of those who sold drugs used alcohol, but 4% of those who had not sold drugs used alcohol;
- 31% of those who sold drugs had an alcoholic parent, but 4% of those who had not sold drugs had an alcoholic parent;
- 39% of the students who sold drugs had been arrested, but 1% of those who had not sold drugs had been arrested;
- 13% of those who sold drugs had been physically or sexually abused, but 2% of those who had not sold drugs had been abused.
- In studying their work in school, 57% of the students who sold drugs had low grades in school, but 13% of those who had not sold drugs had low grades in school;
- 51% of those who sold drugs failed courses in school, but 9% of those who had not sold drugs failed courses;
- 37% of the students who sold drugs were overage in grade, but 16% of those who had not sold drugs were overage in grade;
- 43% of those who sold drugs had been retained in grade, but 14% of those who had not sold drugs had been retained in grade;
- 45% of the students who sold drugs had excessive absences from school, but 7% of those who had not sold drugs had excessive absences;
- 49% of the students who sold drugs had low self-esteem, but 12% of those who had not sold drugs had low self-esteem;
- 20% of the students who sold drugs had been referred to special education, but 10% of the students who had not sold drugs had been referred to special education;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 21% of the students who sold drugs had low reading scores, but 9% of the students who had not sold drugs had low reading scores.

- In studying the risk items associated with family tragedy, it became apparent that 12% of the students who sold drugs had a parent who was sick last year, but 4% of the students who had not sold drugs had a sick parent;

- 5% of the students who sold drugs had a parent who died last year, but 1% of the students who had not sold drugs had a parent who died;

- parents of 12% of the students who sold drugs lost their jobs last year, but parents of 4% of the students who had not sold drugs lost jobs last year;

- 26% of the students who sold drugs had a friend die last year, but 5% of the students who had not sold drugs had a friend die;

- 20% of the students who sold drugs were seriously ill or in an accident last year, but 3% of the students who had not sold drugs were seriously ill or in an accident last year;

- 7% of the students who sold drugs had a sibling who died last year, but 0.5% of those who had not sold drugs had a sibling who died.

- Fathers of 22% of the students who sold drugs were unemployed or held an unskilled laborer's job, but fathers of 17% of students who had not sold drugs were unemployed or held an unskilled laborer's job;

- fathers of 16% of the students who sold drugs had not graduated from high school, but the fathers of 8% of the students who had not sold drugs had not graduated from high school;

- mothers of 28% of the students who sold drugs were unemployed or held an unskilled job, but mothers of 20% of those who had not sold drugs were unemployed or held an unskilled laborer's job;

- the mothers of 24% of students who sold drugs had not graduated from high school, but mothers of 8% of students who had not sold drugs had not graduated from high school;

- parents of 20% of the students who sold drugs had a negative attitude toward education, but parents of 5% of students who had not sold drugs had a negative attitude toward education;

- English was not spoken in the homes of 11% of the students who sold drugs, but English was not spoken in the homes of 5% of the students who had not sold drugs.

- In all, 52% of the students who sold drugs lived in a broken home situation (not with their real mother and real father), but 35% of the students who had not sold drugs lived in a broken home;

- 36% of the students who sold drugs had moved frequently, but 16% of the students who had not sold drugs moved frequently;

- 34% of the students who sold drugs changed schools frequently, but 23% of those who had not sold drugs changed schools frequently;
- parents of 13% of the students who sold drugs divorced last year, but parents of 7% of the students who had not sold drugs divorced last year.

Table 14

Comparison of students who used drugs with students who did not use drugs on various risk items

(N = 632 and 21,074)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	40.7	4.9	1403.93	.001
Attempted suicide	11.4	.5	906.26	.001
Involved in pregnancy	3.6	.5	107.87	.001
Student sold drugs	15.8	.1	2712.49	.001
Student used drugs	100	0		
Family used drugs	36.2	2.5	2099.95	.001
Student used alcohol	75.2	2.5	7356.70	.001
Parent alcoholic	29.6	2.8	1261.71	.001
Student arrested	20.4	.7	1869.18	.001
Student abused	14.6	1.5	570.81	.001
Low grades in school	44.0	12.5	525.63	.001
Failed courses	36.7	8.1	614.89	.001
Overage in grade	32.8	15.7	131.32	.001
Retained in grade	32.9	13.7	184.54	.001
Excessive absences	28.8	6.2	486.25	.001
Low self-esteem	41.9	11.5	524.42	.001
Referred special education	17.6	9.6	44.32	.001
Low reading scores	14.6	9.2	20.48	.001
Parent sick last year	10.8	3.8	75.61	.001
Parent died last year	1.7	.9	4.94	
Parent lost job last year	9.8	3.8	57.11	.001
Friend died last year	18.4	4.2	280.84	.001
Student ill last year	12.3	2.9	174.61	.001
Sibling died last year	2.1	.5	27.57	.001
Father low-level job	21.0	16.7	8.14	.01
Father not high school graduate	16.8	7.5	74.37	.001
Mother low-level job	24.4	19.5	9.28	.01
Mother not high school graduate	18.8	8.0	93.85	.001
Parents' attitude negative	19.3	4.6	278.82	.001
Language not English	7.4	4.8	8.85	.01
Broken home	51.1	34.1	78.65	.001
Moved frequently	26.9	15.5	60.11	.001
Changed schools frequently	28.3	23.2	9.00	.01
Parents divorced last year	13.9	6.6	51.33	.001

STUDENT USED DRUGS VERSUS NOT USE DRUGS

- 41%* of the students who had used drugs had been suspended, but 5% of those who had not used drugs had been suspended;

- 11% of those who used drugs had attempted suicide, but less than 1% of those who had not used drugs had attempted suicide;

- 4% of those who used drugs were involved in a pregnancy, but less than 1% of those who had not used drugs were involved in a pregnancy;

- 16% of those who used drugs sold drugs, but 0.1% of those who had not used drugs sold drugs;

- 36% of those who sold drugs came from a family in which other family members used drugs, but 3% of those who did not use drugs came from such a family;

- 75% of the students who used drugs used alcohol, but less than 3% of those who had not used drugs used alcohol;

- 30% of those who used drugs had a parent who drank excessively or was an alcoholic, but 3% of those who had not used drugs had an alcoholic parent;

- 20% of those who used drugs had been arrested, but 1% of those who had not used drugs had been arrested;

- 15% of those who used drugs had been physically or sexually abused, but 2% of those who had not used drugs had been abused.

- In school-related areas, 44% of the students who used drugs had low grades in school, but 13% of students who had not used drugs had low grades in school;

- 37% of students who used drugs failed courses in school, but 8% of students who had not used drugs failed courses;

- 33% of students who used drugs were overage in grade, but 16% of students who had not used drugs were overage;

- 33% of the students who used drugs had been retained in grade, but 14% of the students who had not used drugs had been retained;

- 29% of students who used drugs had excessive absences from school, but 6% of students who had not used drugs had excessive absences;

- 42% of students who used drugs had low self-esteem, but 12% of students who had not used drugs had low self-esteem;

- 18% of students who used drugs had been referred to special education, but 10% of students who had not used drugs had been referred to special education;

- 15% of students who used drugs had low reading scores, but 9% of the sudents who had not used drugs had low reading scores.

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- It was observed that 11% of the students who used drugs had a parent who was sick last year, but 4% of the students who had not used drugs had a parent who was sick last year;
- 2% of the students who used drugs had a parent who died last year, but 1% of the students who had not used drugs had a parent who died;
- 10% of the students who used drugs had a parent who lost a job last year, but 4% of the students who had not used drugs had a parent who lost a job;
- 18% of the students who used drugs had a friend who died last year, but 4% of those who had not used drugs had a friend who died;
- 12% of the students who used drugs were in an accident or seriously ill last year, but 3% of those who had not used drugs were in an accident or seriously ill;
- 2% of students who used drugs had a sibling who died last year, but 0.5% of those who had not used drugs had a sibling who died.
- The fathers of 21% of the students who used drugs were unemployed or held an unskilled laborer's job, but the fathers of 17% of those who had not used drugs were unemployed or held an unskilled laborer's job;
- the fathers of 17% of those who used drugs had not graduated from high school, but the fathers of 8% of those who had not used drugs had not graduated from high school;
- the mothers of 24% of the students who used drugs were unemployed or held an unskilled laborer's position, but the mothers of 20% of those who had not used drugs were unemployed or held an unskilled laborer's job;
- mothers of 19% of students who used drugs had not graduated from high school, but mothers of 8% of students who had not used drugs had not graduated from high school;
- 19% of the students who used drugs had parents whose attitude toward education was negative, but 5% of the students who had not used drugs had parents whose attitude toward school was negative;
- 7% of the students who used drugs lived in a home in which English was not spoken, but 5% of those who had not used drugs lived in a home in which English was not spoken.
- In terms of their home situation, 51% of the students who used drugs did not live with their real mother and real father, but 34% of those who had not used drugs lived in a broken home;
- 27% of the students who used drugs moved frequently, but 16% of the students who had not used drugs moved frequently;
- 28% of those who used drugs changed schools frequently, but 23%

of those who had not used drugs changed schools frequently;

- 14% of students who used drugs had parents who divorced last year, but 7% of the students who had not used drugs had parents who divorced last year.

Table 15

Comparison of students whose family members used drugs with students whose family members did not use drugs on various risk items

(N = 749 and 20,957)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	24.3	5.3	467.61	.001
Attempted suicide	5.3	.6	197.91	.001
Involved in pregnancy	2.4	.5	45.84	.001
Student sold drugs	7.9	.3	742.75	.001
Student used drugs	30.6	1.9	2099.95	.001
Family used drugs	100	0		
Student used alcohol	37.0	3.5	1845.69	.001
Parent alcoholic	42.2	2.2	3316.23	.001
Student arrested	11.1	.9	584.10	.001
Student abused	16.7	1.3	928.10	.001
Low grades in school	29.2	12.8	168.09	.001
Failed courses	21.8	8.5	156.03	.001
Overage in grade	29.2	15.7	97.10	.001
Retained in grade	31.0	13.7	176.58	.001
Excessive absences	19.2	6.5	183.64	.001
Low self-esteem	29.6	11.8	213.26	.001
Referred special education	14.6	9.6	19.79	.001
Low reading scores	14.4	9.2	23.12	.001
Parent sick last year	17.8	3.6	375.80	.001
Parent died last year	2.5	.9	22.65	.001
Parent lost job last year	15.6	3.6	272.43	.001
Friend died last year	17.5	4.1	293.95	.001
Student ill last year	13.8	2.8	277.32	.001
Sibling died last year	4.5	.4	229.08	.001
Father low-level job	27.2	16.5	59.63	.001
Father not high school graduate	21.5	7.2	205.56	.001
Mother low-level job	31.4	19.2	67.89	.001
Mother not high school graduate	23.6	7.8	237.63	.001
Parents' attitude negative	16.7	4.6	221.78	.001
Language not English	6.4	4.9	3.70	
Broken home	60.6	33.6	232.52	.001
Moved frequently	27.4	15.4	77.86	.001
Changed schools frequently	25.1	23.3	1.33	
Parents divorced last year	18.8	6.4	175.04	.001

FAMILY USED DRUGS VERSUS DID NOT USE DRUGS

- 24%* of students whose family members used drugs were suspended from school, but 5% of those whose family had not used drugs were suspended;
- 5% of those students whose family used drugs had attempted suicide, but 1% of those whose family had not used drugs had attempted suicide;
- 2% of those whose family members used drugs had been involved in a pregnancy, but 0.5% of those whose family members had not used drugs had been involved in a pregnancy;
- 8% of those whose family used drugs had sold drugs, but 0.3% of those whose family had not used drugs sold drugs;
- 31% of those whose family members used drugs used drugs themselves, but 2% of those whose family members had not used drugs used drugs themselves;
- 37% of those students whose family members used drugs used alcohol, but 4% of those students whose family had not used drugs used alcohol;
- 42% of those whose family members used drugs had a parent who drank excessively or was an alcoholic, but 2% of those students whose family members had not used drugs had an alcoholic parent;
- 11% of those whose family used drugs had been arrested, but 1% of those whose family had not used drugs had been arrested;
- 17% of those whose family members used drugs had been physically or sexually abused, but 1% of those whose family had not used drugs had been abused.
- In studying comparisons related to school, 29% of students whose family members used drugs had low grades in school, but 13% of students who family members had not used drugs had low grades in school;
- 22% of students whose family used drugs failed courses in school, but 9% of students whose family members had not used drugs failed courses in school;
- 29% of the students whose family members used drugs were overage in grade, but 16% of those whose family had not used drugs were overage in grade;
- 31% of the students whose family members used drugs had been retained in grade, but 14% of those whose family had not used drugs had been retained in grade;
- 19% of the students whose family used drugs had excessive absences from school, but 7% of students whose family had not used drugs had excessive absences;

** Note: Percentage numbers in the narrative analyses are rounded off.*

- 30% of the students whose family members used drugs had low self-esteem, but 12% of those whose family had not used drugs had low self-esteem;

- 15% of students whose family used drugs had been referred to special education, but 10% of those whose family members had not used drugs had been referred to special education;

- 14% of those whose family used drugs had low reading scores, but 9% of those students whose family members had not used drugs had low scores in reading.

- The data indicated that 18% of students whose family used drugs had a parent who was sick last year, but 4% of those whose family had not used drugs had a sick parent;

- 3% of the students whose family members used drugs had a parent who died last year, but 1% of those whose family had not used drugs had a parent who died;

- 16% of the students whose family members used drugs had a parent who lost his or her job last year, but 4% of those whose family had not used drugs had a parent who lost a job;

- 18% of the students whose family members used drugs had a friend who died last year, but 4% of those whose family had not used drugs had a friend who died last year;

- 14% of those whose family used drugs were in an accident or seriously ill last year, but 3% of those whose family had not used drugs were in an accident or seriously ill last year;

- 5% of the students whose family members used drugs had a sibling who died last year, but 0.4% of those whose family had not used drugs had a sibling who died.

- Fathers of 27% of the students whose family members used drugs were unemployed or held an unskilled laborer's job, but fathers of 17% of those whose family had not used drugs were unemployed or held an unskilled job;

- fathers of 22% of the students whose family members used drugs had not graduated from high school, but fathers of 7% of the students whose family members had not used drugs had not graduated from high school;

- mothers of 31% of the students whose family used drugs were unemployed or held an unskilled laborer's job, but mothers of 19% of the students whose family had not used drugs were unemployed or held an unskilled laborer's job;

- mothers of 24% of students whose family members used drugs had not graduated from high school, but mothers of 8% of students whose family had not used drugs had not graduated from high school;

- 17% of the students whose family used drugs had parents whose attitude toward education was negative, but 5% of the students whose family had not used drugs had parents whose attitude was negative;

- 6% of the students whose family members used drugs lived in a home in which English was not spoken, but 5% of the students whose family had not used drugs lived in a home in which English was not spoken.
- In all, 61% of the students whose family members used drugs lived in a broken home (not with real mother and real father), but 34% of the students whose family had not used drugs lived in a broken home;
- 27% of the students whose family members used drugs moved frequently, but 15% of those whose family members had not used drugs moved frequently;
- 25% of the students whose family members used drugs changed schools frequently, but 23% of those whose family had not used drugs changed schools frequently;
- 19% of the students whose family members used drugs had parents who divorced last year, but 6% of the students whose family members had not used drugs had parents who divorced last year.

Table 16

Comparison of students who used alcohol with students who did not use alcohol on various risk items

(N = 1,002 and 20,704)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	32.1	4.7	1289.29	.001
Attempted suicide	8.1	.5	690.91	.001
Involved in pregnancy	4.0	.4	216.41	.001
Student sold drugs	9.6	.1	1528.82	.001
Student used drugs	47.4	.8	7356.70	.001
Family used drugs	27.6	2.3	1845.70	.001
Student used alcohol	100	0		
Parent alcoholic	25.0	2.6	1386.76	.001
Student arrested	15.1	.6	1566.55	.001
Student abused	9.8	1.5	358.10	.001
Low grades in school	31.9	12.5	311.67	.001
Failed courses	27.0	8.1	421.60	.001
Overage in grade	26.5	15.7	82.78	.001
Retained in grade	27.3	13.6	144.44	.001
Excessive absences	18.4	6.3	215.11	.001
Low self-esteem	31.4	11.5	352.05	.001
Referred special education	13.1	9.6	12.70	.001
Low reading scores	9.7	9.4	.11	
Parent sick last year	9.7	3.8	85.96	.001
Parent died last year	1.2	.9	.94	
Parent lost job last year	9.7	3.7	88.10	.001
Friend died last year	19.8	3.9	550.60	.001
Student ill last year	11.4	2.8	225.40	.001
Sibling died last year	1.6	.5	21.55	.001
Father low-level job	17.4	16.8	.19	
Father not high school graduate	16.9	7.3	122.53	.001
Mother low-level job	20.0	19.6	.07	
Mother not high school graduate	17.5	7.9	114.65	.001
Parents' attitude negative	13.1	4.6	143.10	.001
Language not English	4.2	5.0	1.18	
Broken home	48.2	33.9	86.25	.001
Moved frequently	22.3	15.5	32.77	.001
Changed schools frequently	23.0	23.4	.09	
Parents divorced last year	12.8	6.5	58.15	.001

STUDENT USED ALCOHOL VERSUS STUDENT DID NOT USE ALCOHOL

- 32%* of the students who used alcohol had been suspended from school, but 5% of those who had not used alcohol had been suspended;
- 8% of those who had used alcohol had attempted suicide, but less than 1% of those who had not used alcohol attempted suicide;
- 4% of those who used alcohol had been involved in a pregnancy, but 0.4% of those who had not used alcohol had been involved in a pregnancy;
- 10% of those who used alcohol sold drugs, but 0.1% of those who had not used alcohol sold drugs;
- 47% of those who used alcohol used drugs, but 1% of those who had not used alcohol used drugs;
- 28% of the students who used alcohol had family members who used drugs, but 2% of those who had not used alcohol had family members who used drugs;
- 25% of students who used alcohol had an alcoholic parent, but 3% of students who had not used alcohol had an alcoholic parent;
- 15% of the students who used alcohol had been arrested, but 1% of students who had not used alcohol had been arrested;
- 10% of students who used alcohol had been physically or sexually abused, but 2% of the students who had not used alcohol had been abused.
- In all 32% of the students who used alcohol had low grades in school, but 13% of those who had not used alcohol had low grades in school;
- 27% of those who used alcohol had failed courses in school, but 8% of the students who had not used alcohol failed courses in school;
- 27% of the students who used alcohol were overage in grade, but 16% of those who had not used alcohol were overage in grade;
- 27% of the students who used alcohol had been retained in grade, but 14% of the students who had not used alcohol had been retained in grade;
- 18% of students who used alcohol had excessive absences from school, but 6% of those who had not used alcohol had excessive absences;
- 31% of students who used alcohol had low self-esteem, but 12% of those who had not used alcohol had low self-esteem;
- 13% of the students who used alcohol had been referred to special education, but 10% of those who had not used alcohol had been referred to special education;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 10% of the students who used alcohol had low reading scores, but 9% of those who had not used alcohol had low reading scores.

- In the family area, 10% of the students who used alcohol had a parent who was sick last year, but 4% of those who had not used alcohol had a parent who was sick;

- 1% of the students who used alcohol had a parent who died last year, and 1% of those who had not used alcohol had a parent who died last year;

- 10% of the students who used alcohol had a parent who lost his or her job last year, but 4% of those who had not used alcohol had a parent who lost a job;

- 20% of the students who used alcohol had a friend who died last year, but 4% of those who had not used alcohol had a friend who died last year;

- 11% of the students who used alcohol were seriously ill or in an accident last year, but 3% of those who had not used alcohol were seriously ill or in an accident last year;

- 2% of the students who used alcohol had a sibling who died last year, but 1% of those who had not used alcohol had a sibling who died.

- Fathers of 17% of the students who used alcohol were unemployed or held an unskilled laborer's job, and fathers of 17% of the students who had not used alcohol were unemployed or held an unskilled job;

- fathers of 17% of the students who used alcohol had not graduated from high school, but fathers of 7% of the students who had not used alcohol had not graduated from high school;

- mothers of 20% of those who used alcohol were unemployed or held an unskilled laborer's job, and mothers of 20% of those who had not used alcohol were unemployed or held an unskilled laborer's job;

- mothers of 18% of the students who used alcohol had not graduated from high school, but mothers of 8% of those who had not used alcohol had not graduated from high school;

- 13% of the students who had used alcohol had parents who had a negative attitude toward education, but 5% of the students who had not used alcohol had parents who had a negative attitude toward education;

- 4% of the students who used alcohol lived in a home in which English was not the language spoken, but 5% of those who had not used alcohol lived in a home in which English was not spoken.

- The data indicate that 48% of students who used alcohol came from a broken home, but 34% of students who had not used alcohol came from a broken home;

- 22% of the students who used alcohol moved frequently, but 16% of students who had not used alcohol moved frequently;

- 23% of the students who had used alcohol changed schools frequently, and 23% of the students who had not used alcohol changed schools frequently;
- 13% of the students who used alcohol had parents who divorced last year, but 7% of those who had not used alcohol had parents who divorced last year.

Table 17

Comparison of students with an alcoholic parent with students whose parents were not alcoholics on various risk items

(N = 784 and 20,922)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	22.8	5.3	415.03	.001
Attempted suicide	5.4	.6	209.03	.001
Involved in pregnancy	2.4	.5	49.13	.001
Student sold drugs	4.9	.4	267.20	.001
Student used drugs	23.9	2.1	1261.71	.001
Family used drugs	40.3	2.1	3316.23	.001
Student used alcohol	32.0	3.6	1386.76	.001
Parent alcoholic	100	0		
Student arrested	9.6	1.0	437.55	.001
Student abused	17.2	1.3	1044.01	.001
Low grades in school	27.9	12.8	148.41	.001
Failed courses	19.5	8.6	111.22	.001
Overage in grade	28.2	15.8	86.06	.001
Retained in grade	30.9	13.7	182.77	.001
Excessive absences	16.6	6.5	118.82	.001
Low self-esteem	33.3	11.6	328.18	.001
Referred special education	15.8	9.6	33.25	.001
Low reading scores	15.9	9.1	41.15	.001
Parent sick last year	16.7	3.6	336.10	.001
Parent died last year	2.2	.9	14.20	.001
Parent lost job last year	17.1	3.5	362.55	.001
Friend died last year	16.5	4.2	260.66	.001
Student ill last year	12.8	2.9	238.38	.001
Sibling died last year	3.3	.4	115.65	.001
Father low-level job	29.5	16.4	92.24	.001
Father not high school graduate	19.5	7.3	157.95	.001
Mother low-level job	32.8	19.1	89.23	.001
Mother not high school graduate	22.3	7.8	208.30	.001
Parents' attitude negative	17.1	4.6	249.86	.001
Language not English	6.5	4.9	4.39	.04
Broken home	56.9	33.7	179.00	.001
Moved frequently	28.6	15.3	99.49	.001
Changed schools frequently	27.4	23.2	7.54	.01
Parents divorced last year	21.8	6.3	286.35	.001

PARENT ALCOHOLIC VERSUS NOT ALCOHOLIC

- 23%* of the students who had a parent who drank excessively had been suspended from school, but 5% of those whose parents were not alcoholic had been suspended;
- 5% of those whose parent was an alcoholic had attempted suicide, but 1% of those whose parent was not alcoholic had attempted suicide;
- 2% of those whose parent drank excessively had been involved in a pregnancy, but less than 1% of those whose parent was not alcoholic had been involved in a pregnancy;
- 5% of those whose parent was an alcoholic had sold drugs, but less than 0.5% of those whose parents had not been alcoholic had sold drugs;
- 24% of those whose parent was alcoholic used drugs, but 2% of those whose parents were not alcoholic used drugs;
- 40% of those whose parent was alcoholic used drugs, but 2% of those whose parents were not alcoholic used drugs;
- 32% of the students who had a parent who was alcoholic used alcohol themselves, but 4% of those whose parents were not alcoholic used alcohol;
- 10% of those who had a parent who was alcoholic had been arrested, but 1% of those whose parents were not alcoholic had been arrested;
- 17% of those who had a parent who drank excessively had been abused, and 1% of those whose parents were not excessive drinkers had been abused.
- In studying students' school work, 28% of the students who had an alcoholic parent had low grades in school, but 13% of students whose parent was not alcoholic had low grades in school;
- 20% of the students who had a parent who was alcoholic failed courses in school, but 9% of those whose parents were not alcoholic failed courses in school;
- 28% of the students who had a parent who drank excessively were overage in grade, but 16% of those whose parents were not alcoholics were overage in grade;
- 31% of those whose parent was alcoholic had been retained in grade, but 14% of those whose parents were not alcoholic had been retained in grade;
- 17% of the students whose parents were alcoholic had excessive absences from school, but 7% of those whose parents were not alcoholic had excessive absences;
- 33% of the students who had a parent who drank too much had low self-esteem, but 12% of those whose

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

parents were not alcoholics had low self-esteem;

- 16% of students who had a parent who drank too much had been referred to special education, but 10% of students whose parents were not excessive drinkers had been referred to special education;
- 16% of the students who had an alcoholic parent had low reading scores, but 9% of the students whose parents were not alcoholic had low reading scores.
- The data indicate that 17% of students who had an alcoholic parent had a parent who was sick last year, and 4% of students whose parents were not alcoholic had a parent who was sick last year;
- 2% of the students who had an alcoholic parent had a parent who died last year, and 1% of the students whose parents were not alcoholic had a parent who died;
- 17% of the students who had an alcoholic parent had a parent who lost his or her job last year, but 4% of the students whose parents were not alcoholics had a parent who lost a job;
- 17% of the students who had a parent who drank excessively had a friend who died last year, but 4% of the students whose parents had not drunk excessively had a friend who died last year;
- 13% of students whose parents drank excessively were seriously ill or in an accident last year, but 3% of those whose parents were not alcoholics were seriously ill or in an accident;
- 3% of the students whose parents were alcoholic had a sibling who died last year, but 0.4% of those whose parents had not been excessive drinkers had a sibling who died last year.
- Fathers of 30% of the students who had a parent who was an alcoholic were unemployed or held an unskilled laborer's job, but fathers of 16% of the students whose parents were not alcoholics were unemployed or held an unskilled job;
- fathers of 20% of the students who had an alcoholic parent had not graduated from high school, but fathers of 7% of the students whose parents were not alcoholics had not graduated from high school;
- mothers of 33% of the students who had an alcoholic parent were unemployed or held an unskilled laborer's position, but mothers of 19% of students whose parents were not alcoholic were unemployed or held a low-level job;
- mothers of 22% of students who had an alcoholic parent had not graduated from high school, but mothers of 8% of students whose parents were not alcoholics had not graduated from high school;
- 17% of students who had a parent who drank excessively had parents whose attitude toward education was

negative, but 5% of students whose parents were not alcoholics had parents whose attitudes toward education were negative;

- 7% of students who had an alcoholic parent lived in a home in which English was not the language spoken, but 5% of students whose parents were not alcoholics lived in a home in which English was not spoken.

- In all, 57% of the students who had a parent who drank too much did not live with the real mother and real father, but 34% of the students whose parents were not excessive drinkers did not live with the real mother and real father;

- 29% of the students who had an alcoholic parent moved frequently, but 15% of the students whose parents were not excessive drinkers moved frequently;

- 27% of the students who had an alcoholic parent changed schools frequently, but 23% of those whose parents were not alcoholic changed schools frequently;

- 22% of the students who had a parent who drank too much had parents who got divorced last year, but 6% of those whose parents were not alcoholics got divorced last year.

Table 18

Comparison of students who were arrested with students who were not arrested on various risk items

(N = 280 and 21,426)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	46.8	5.4	846.49	.001
Attempted suicide	8.9	.7	232.42	.001
Involved in pregnancy	6.1	.5	151.08	.001
Student sold drugs	16.8	.4	1335.86	.001
Student used drugs	46.1	2.3	1869.18	.001
Family used drugs	29.6	3.1	584.10	.001
Student used alcohol	53.9	4.0	1566.55	.001
Parent alcoholic	26.8	3.3	437.55	.001
Student arrested	100	0		
Student abused	12.1	1.7	163.08	.001
Low grades in school	51.1	12.9	347.38	.001
Failed courses	43.9	8.5	425.48	.001
Overage in grade	37.5	15.9	94.76	.001
Retained in grade	37.1	14.0	121.10	.001
Excessive absences	34.6	6.5	340.09	.001
Low self-esteem	40.0	12.0	199.65	.001
Referred special education	19.3	9.7	28.84	.001
Low reading scores	18.6	9.3	28.15	.001
Parent sick last year	13.2	3.9	61.45	.001
Parent died last year	2.1	.9	4.75	.03
Parent lost job last year	13.6	3.9	67.57	.001
Friend died last year	22.5	4.4	207.25	.001
Student ill last year	16.1	3.0	150.95	.001
Sibling died last year	1.1	.5	1.46	
Father low-level job	24.3	16.8	11.17	.001
Father not high school graduate	20.7	7.6	66.87	.001
Mother low-level job	27.5	19.5	11.15	.001
Mother not high school graduate	22.1	8.2	70.80	.001
Parents' attitude negative	19.6	4.8	127.33	.001
Language not English	11.1	4.8	23.0	.001
Broken home	55.4	34.3	54.15	.001
Moved frequently	33.2	15.6	64.54	.001
Changed schools frequently	33.9	23.2	17.74	.001
Parents divorced last year	12.1	6.8	12.54	.001

STUDENT WAS ARRESTED VERSUS NOT ARRESTED

- 47%* of students who had been arrested had been suspended from school, but 5% of those not arrested had been suspended;

- 9% of those who had been arrested had attempted suicide, but 1% of those not arrested had attempted suicide;

- 6% of those arrested had been involved in a pregnancy, but less than 1% of those not arrested had been involved in a pregnancy;

- 17% of students who had been arrested sold drugs, but 0.4% of those not arrested sold drugs;

- 46% of students arrested had used drugs, but 2% of those not arrested had used drugs;

- 30% of students who were arrested lived in a family in which other members used drugs, but 3% of students not arrested lived in such a family;

- 54% of the students arrested used alcohol, but 4% of students not arrested used alcohol;

- 27% of students who had been arrested had a parent who was an alcoholic, but 3% of students not arrested had a parent who drank excessively;

- 12% of students who were arrested had been physically or sexually abused, but 2% of students who had not been arrested had been abused.

- In terms of school accomplishments, 51% of the students who had been arrested had low grades in school, but 13% of those not arrested had low grades in school;

- 44% of students who had been arrested failed courses in school, but 9% of students who had not been arrested failed courses;

- 38% of those arrested were overage in grade, but 16% of those not arrested were overage in grade;

- 37% of the students who had been arrested had been retained in grade, but 14% of those who had not been arrested had been retained in grade;

- 35% of the students who had been arrested had excessive absences from school, but 7% of those not arrested had excessive absences from school;

- 40% of the students arrested had low self-esteem, but 12% of those not arrested had low self-esteem;

- 19% of the students who had been arrested had been referred to special education, but 10% of those not arrested had been referred to special education;

- 19% of the students who had been arrested had low reading scores, but 9% of those who had not been arrested had low reading scores.

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- Parents of 13% of the students who had been arrested had been sick last year, but parents of 4% of the students who had not been arrested had been sick last year;

- parents of 2% of the students who had been arrested died last year, but parents of 1% of the students who had not been arrested died;

- parents of 14% of the students who had been arrested lost their job last year, but parents of 4% of students who had not been arrested lost their job last year;

- 23% of the students who had been arrested had a friend who died last year, but 4% of the students who had not been arrested had a friend who died;

- 16% of the students who had been arrested had been seriously ill or in an accident last year, but 3% of the students who had not been arrested had been seriously ill or in an accident;

- 1% of the students who had been arrested had a sibling who died last year, but 0.5% of the students who had not been arrested had a sibling who died.

- Fathers of 24% of students who had been arrested were unemployed or held low-level jobs, but fathers of 17% of those who had not been arrested were unemployed or held low-level jobs;

- fathers of 21% of the students who had been arrested had not graduated from high school, but fathers of 8% of students who had not been arrested had not graduated from high school;

- mothers of 28% of students who had been arrested were unemployed or held low-level jobs, but mothers of 20% of the students who had not been arrested were unemployed or held low-level jobs;

- mothers of 22% of students who had been arrested had not graduated from high school, but mothers of 8% of those not arrested had not graduated from high school;

- 20% of students who had been arrested had parents whose attitude toward education was negative, but 5% of the students who had not been arrested had parents whose attitude toward education was negative;

- 11% of students who had been arrested lived in a home in which English was not spoken, but 5% of those who had not been arrested lived in such a home.

- Regarding the home situation, 55% of the students who had been arrested did not live with their real mother and real father, but 34% of students not arrested did not live with their real mother and real father;

- 33% of students who had been arrested moved frequently, but 16% of students who had not been arrested moved frequently;

- 34% of students who had been arrested changed schools frequently, but 23% of students who had not been arrested changed schools frequently;

- 12% of the students who had been arrested had parents who were divorced last year, but 7% of those not arrested had parents who were divorced last year.

Table 19

Comparison of students who were abused with students who were not abused on various risk items

(N = 406 and 21,300)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	23.4	5.6	225.53	.001
Attempted suicide	11.6	.6	596.21	.001
Involved in pregnancy	4.2	.5	95.24	.001
Student sold drugs	3.9	.5	84.51	.001
Student used drugs	22.7	2.5	570.81	.001
Family used drugs	30.8	2.9	928.10	.001
Student used alcohol	24.1	4.2	359.10	.001
Parent alcoholic	33.3	3.0	1044.01	.001
Student arrested	8.4	1.2	163.08	.001
Student abused	100	0		
Low grades in school	30.5	13.1	104.99	.001
Failed courses	21.4	8.7	78.93	.001
Overage in grade	30.0	15.9	58.42	.001
Retained in grade	32.3	13.9	109.31	.001
Excessive absences	17.2	6.7	68.95	.001
Low self-esteem	47.5	11.7	471.77	.001
Referred special education	21.9	9.6	68.70	.001
Low reading scores	21.4	9.2	70.58	.001
Parent sick last year	17.7	3.8	199.75	.001
Parent died last year	1.7	.9	3.02	
Parent lost job last year	15.8	3.8	148.88	.001
Friend died last year	9.6	4.5	23.66	.001
Student ill last year	12.3	3.0	110.34	.001
Sibling died last year	2.5	.5	28.19	.001
Father low-level job	30.5	16.6	55.28	.001
Father not high school graduate	19.0	7.5	73.01	.001
Mother low-level job	35.5	19.3	65.83	.001
Mother not high school graduate	20.7	8.1	82.68	.001
Parents' attitude negative	22.9	4.7	277.86	.001
Language not English	5.9	4.9	.87	
Broken home	64.5	34.0	164.13	.001
Moved frequently	33.5	15.5	97.22	.001
Changed schools frequently	31.0	23.2	13.66	.001
Parents divorced last year	23.4	6.5	178.18	.001

STUDENT WAS ABUSED VERSUS WAS NOT ABUSED

- 23%* of students who had been abused were suspended from school, but 6% of students not abused were suspended from school;
- 12% of students who had been abused had attempted suicide, but 1% of students not abused had attempted suicide;
- 4% of students who had been abused had been involved in a pregnancy, but 0.5% of students not abused had been involved in a pregnancy;
- 4% of students who had been abused sold drugs, but less than 1% of students who had not been abused sold drugs;
- 23% of the abused students used drugs, but 3% of students not abused used drugs;
- 31% of the students who had been abused lived with family members who used drugs, but 3% of students who had not been abused lived with family members who used drugs;
- 24% of the students who had been abused used alcohol, but 4% of the students not abused used alcohol;
- 33% of abused students had a parent who was an alcoholic, but 3% of students who had not been abused had a parent who was an alcoholic;
- 8% of the students who had been abused had been arrested, but 1% of the students not abused had been arrested.
- Regarding school, 31% of students who had been abused had low grades in school, but 13% of those not abused had low grades in school;
- 21% of the abused students failed courses in school, but 9% of those not abused failed courses;
- 30% of the students who had been abused were overage in grade, but 16% of students not abused were overage in grade;
- 32% of abused students had been retained in grade, but 14% of non-abused students had been retained in grade;
- 17% of students who had been abused had excessive absences from school, but 7% of the students who had not been abused had excessive absences from school;
- 48% of the abused students had low self-esteem, but 12% of students who had not been abused had low self-esteem;
- 22% of the students who had been abused had been referred to special education, but 10% of students not abused had been referred to special education;
- 21% of abused students had low reading scores, but 9% of students not abused had low reading scores.

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- The data indicate that 18% of students who had been abused had a parent who was sick last year, but 4% of students not abused had a parent who was sick;

- 2% of the abused students had a parent who died last year, but 1% of the students who had not been abused had a parent who died;

- 16% of the abused students had a parent who lost his or her job last year, but 4% of students not abused had a parent who lost his or her job;

- 10% of students who had been abused had a friend who died last year, but 5% of students who had not been abused had a friend who died;

- 12% of students who had been abused were seriously ill or in an accident last year, but 3% of the students who had not been abused were seriously ill or in an accident;

- 3% of the students who had been abused had a sibling who died last year, but 1% of the students who had not been abused had a sibling who died.

- Fathers of 31% of students who had been abused were unemployed or held unskilled laborer's jobs, but fathers of 17% of students who had not been abused were unemployed or held unskilled jobs;

- fathers of 19% of students who had been abused had not graduated from high school, but fathers of 8% of those who had not been abused had not graduated from high school;

- mothers of 36% of students who had been abused were unemployed or held unskilled laborer's jobs, but mothers of 19% of students who had not been abused were unemployed or held unskilled jobs;

- mothers of 21% of students who had been abused had not graduated from high school, but mothers of 8% of students who had not been abused had not graduated from high school;

- 23% of students who had been abused had parents whose attitude toward education was negative, but 5% of students who had not been abused had parents whose attitude toward education was negative;

- 6% of students who had been abused lived in homes in which English was not spoken, but 5% of students who had not been abused lived in homes in which English was not spoken.

- Almost 65% of the students who had been abused, physically or sexually, did not live with their real mother and real father, but 34% of students who had not been abused did not live with their real mother and real father;

- 34% of the students who had been abused moved frequently, but 16% of the students who had not been abused moved frequently;

- 31% of the students who had been abused changed schools frequently, but 23% of those not abused changed schools frequently;

- parents of 23% of the students who had been abused got a divorce last year, but the parents of 7% of students who had not been abused got divorced last year.

SUMMARY

In this appendix, comparisons were made of students who were at risk on one item with students who were not at risk on that item on 33 other items about which information had been collected. These comparisons were accomplished on the 10 items that a factor analysis suggested comprised one factor: personal pain. Details about that analysis are described in *Assessing and Predicting Risk Among Students in School, (Final Report – Phi Delta Kappa Study of Students At Risk, volume 2)*.

In all, 330 comparisons were presented here. These comparisons are also described in tables 10 through 19 in appendix D and charts 1 through 34 in appendix G, volume 2.

It should be noted that 98% of the comparisons on the personal pain factor items were in the same direction: students at risk on one item were also at risk on other items. Further, 87% of the comparisons were significant statistically (.001). The pattern suggests that students at risk on one item were about twice as likely to be at risk on other items as students who were not at risk on that item. Risks were related, even though they were specific.

APPENDIX C

RISK AND ACADEMIC FAILURE COMPARISONS

The information about 21,706 students provided by teachers and counselors to researchers on the 45-item scale that had been developed from a review of 115 research studies was subjected to factor analysis. Five factors emerged:

- personal pain
- academic failure
- family tragedy
- family socioeconomic situation
- family instability

As a result of logical and empirical considerations, the 45-item scale was reduced to a 34-item scale. Eventually, some of the 34 items were combined to produce a 24-item scale, but the results presented here were based on multiple analyses of the 34-item scale.

The description that follows organizes the discussion around each of the items associated with one of the five factors cited above – academic failure. Students were separated (evidence of risk versus no evidence of risk) on one of eight items associated with the academic failure factor, then compared on all of the other items on the scale.

ACADEMIC FAILURE

The eight items that comprised the academic failure factor were:

- low grades in school
- failed courses
- overage in grade
- retained in grade
- excessive absences
- low self-esteem
- referred to special education
- low reading scores

Reading about these comparisons is slow and laborious, but the evidence is overwhelming: students at risk on one item were much more likely to be at risk on the other items than students who were not at risk on the first item. To extend the comparison, the narrative analysis below parallels the tabular descriptions, presented below and in volume 2 (appendix D, tables 20 through 27, and appendix G charts 35 through 68).

Table 20

Comparison of students with low grades in school with students whose grades were not low on various risk items

(N = 2,906 and 18,800)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	19.6	3.8	1127.55	.001
Attempted suicide	1.4	.7	16.79	.001
Involved in pregnancy	1.4	.4	38.29	.001
Student sold drugs	2.4	.3	204.74	.001
Student used drugs	9.6	1.9	525.63	.001
Family used drugs	7.5	2.8	168.09	.001
Student used alcohol	11.0	3.6	311.67	.001
Parent alcoholic	7.5	3.0	148.41	.001
Student arrested	4.9	.7	347.38	.001
Student abused	4.3	1.5	104.99	.001
Low grades in school	100	0		
Failed courses	50.4	2.5	7072.02	.001
Overage in grade	38.9	12.7	1267.50	.001
Retained in grade	38.6	10.5	1617.51	.001
Excessive absences	24.1	4.2	1538.13	.001
Low self-esteem	35.4	8.8	1636.97	.001
Referred special education	20.4	8.2	429.29	.001
Low reading scores	26.2	6.8	1113.94	.001
Parent sick last year	4.9	3.9	6.12	.01
Parent died last year	1.0	.9	.53	
Parent lost job last year	6.0	3.7	35.57	.001
Friend died last year	6.0	4.4	14.05	.001
Student ill last year	4.6	3.0	20.13	.001
Sibling died last year	.5	.5	.04	
Father low-level job	25.6	15.5	183.08	.001
Father not high school graduate	13.7	6.8	166.68	.001
Mother low-level job	27.7	18.4	139.89	.001
Mother not high school graduate	15.8	7.2	244.47	.001
Parents' attitude negative	14.5	3.6	631.46	.001
Language not English	7.2	4.6	36.08	.001
Broken home	47.7	32.5	256.61	.001
Moved frequently	22.3	14.8	104.96	.001
Changed schools frequently	28.4	22.6	46.99	.001
Parents divorced last year	8.2	6.6	9.65	.002

LOW GRADES VERSUS GRADES NOT LOW

- 20%* of students whose grades were low had been suspended from school, but 4% of students whose grades were not low had been suspended;
- 1% of students whose grades were low had attempted suicide, and 1% of students whose grades were not low had attempted suicide;
- 1% of students whose grades were low had been involved in a pregnancy, but 0.4% of students whose grades were not low had been involved in a pregnancy;
- 2% of students whose grades were low sold drugs, but 0.3% of students whose grades were not low sold drugs;
- 10% of students whose grades were low used drugs, but 2% of students whose grades were not low used drugs;
- 8% of students whose grades were low lived in a family in which family members used drugs, but 3% of students whose grades were not low lived in a family that used drugs;
- 11% of students whose grades were low used alcohol, but 4% of students whose grades were not low used alcohol;
- 8% of students whose grades were low had an alcoholic parent, but 3% of students whose grades were not low had an alcoholic parent;
- 5% of students whose grades were low had been arrested, but 1% of students whose grades were not low had been arrested;
- 4% of students whose grades were low had been physically or sexually abused, but 2% of students whose grades were not low had been physically or sexually abused.
- Slightly more than 50% of students whose grades were low failed courses in school, but 3% of students whose grades were not low failed courses in school;
- 39% of students whose grades were low were overage in grade, but 13% of students whose grades were not low were overage in grade;
- 39% of students whose grades were low had been retained in grade, but 11% of students whose grades were not low had been retained in grade;
- 24% of students whose grades were low had excessive absences from school, but 4% of students whose grades were not low had excessive absences from school;
- 35% of students whose grades were low had low self-esteem, but 9% of students whose grades were not low had low self-esteem;
- 20% of students whose grades were low had been referred to special edu-

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

cation, but 8% of students whose grades were not low had been referred to special education;

- 26% of students whose grades were low had low reading scores, but 7% of students whose grades were not low had low reading scores.
- Parents of 5% of students whose grades were low were sick last year, but parents of 4% of students whose grades were not low were sick last year;
- a parent of 1% of students whose grades were low died last year, and a parent of 1% of students whose grades were not low died last year;
- a parent of 6% of students whose grades were low lost his or her job last year, but a parent of 4% of students whose grades were not low lost his or her job last year;
- 6% of students whose grades were low had a friend die last year, but 4% of students whose grades were not low had a friend die last year;
- 5% of students whose grades were low were seriously ill or in an accident last year, but 3% of students whose grades were not low were seriously ill or in an accident last year;
- 0.5% of students whose grades were low had a sibling die last year, and 0.5% of students whose grades were not low had a sibling die last year.
- Fathers of 26% of students whose grades were low were unemployed or held a low-level job, but fathers of 16% of students whose grades were not low were unemployed or held a low-level job;
- fathers of 14% of students whose grades were low had not graduated from high school, but fathers of 7% of students whose grades were not low had not graduated from high school;
- mothers of 28% of students whose grades were low were unemployed or held a low-level job, but mothers of 18% of students whose grades were not low were unemployed or held a low-level job;
- mothers of 16% of students whose grades were low had not graduated from high school, but mothers of 7% of students whose grades were not low had not graduated from high school;
- parents of 15% of students whose grades were low had negative attitudes about education, but parents of 4% of students whose grades were not low had negative attitudes about education;
- 7% of students whose grades were low lived in a home in which English was not spoken, but 5% of students whose grades were not low lived in a home in which English was not spoken.
- Almost 48% of students whose grades were low did not live with their real mother and real father, but 33% of students whose grades were not low did not live with their real mother and real father;

- 22% of students whose grades were low moved frequently, but 15% of students whose grades were not low moved frequently;
- 28% of students whose grades were low changed schools frequently, but 23% of students whose grades were not low changed schools frequently;
- parents of 8% of students whose grades were low got divorced last year, but parents of 7% of students whose grades were not low got divorced last year.

Table 21

Comparison of students who failed courses in school with students who did not fail courses on various risk items

(N = 1,944 and 19,762)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	23.5	4.2	1178.55	.001
Attempted suicide	2.4	.7	64.23	.001
Involved in pregnancy	2.2	.4	94.94	.001
Student sold drugs	3.2	.3	263.70	.001
Student used drugs	11.9	2.0	614.89	.001
Family used drugs	8.4	3.0	156.03	.001
Student used alcohol	13.9	3.7	421.60	.001
Parent alcoholic	7.9	3.2	111.22	.001
Student arrested	6.3	.8	425.48	.001
Student abused	4.5	1.6	78.93	.001
Low grades in school	75.4	7.3	7072.02	.001
Failed courses	100	0		
Overage in grade	43.2	13.6	1142.67	.001
Retained in grade	43.6	11.4	1496.15	.001
Excessive absences	29.7	4.7	1726.28	.001
Low self-esteem	36.3	10.0	1128.82	.001
Referred special education	16.4	9.2	105.37	.001
Low reading scores	26.2	7.7	708.56	.001
Parent sick last year	6.1	3.8	22.56	.001
Parent died last year	1.3	.9	3.30	
Parent lost job last year	6.4	3.8	32.71	.001
Friend died last year	7.3	4.3	35.66	.001
Student ill last year	5.3	3.0	31.42	.001
Sibling died last year	.8	.5	2.05	
Father low-level job	22.9	16.3	56.42	.001
Father not high school graduate	15.1	7.0	160.76	.001
Mother low-level job	25.6	19.0	48.59	.001
Mother not high school graduate	18.2	7.4	272.60	.001
Parents' attitude negative	14.3	4.1	386.16	.001
Language not English	9.3	4.5	88.24	.001
Broken home	49.5	33.1	211.29	.001
Moved frequently	23.7	15.0	98.88	.001
Changed schools frequently	25.4	23.2	4.83	.03
Parents divorced last year	9.7	6.6	27.91	.001

FAILED COURSES VERSUS DID NOT FAIL COURSES

- 24%* of students who failed courses were suspended from school, but 4% of students who had not failed courses were suspended from school;

- 2% of students who failed courses attempted suicide, but 1% of students who had not failed courses attempted suicide;

- 2% of students who failed courses were involved in a pregnancy, but 0.4% of students who had not failed courses were involved in a pregnancy;

- 3% of students who failed courses sold drugs, but 0.3% of students who had not failed courses sold drugs;

- 12% of students who failed courses used drugs, but 2% of students who had not failed courses used drugs;

- 8% of students who failed courses lived in a family that used drugs, but 3% of students who had not failed courses lived in a family that used drugs;

- 14% of students who failed courses used alcohol, but 4% of students who had not failed courses used alcohol;

- 8% of students who failed courses had an alcoholic parent, but 3% of students who had not failed courses had an alcoholic parent;

- 6% of students who failed courses had been arrested, but 1% of students who had not failed courses had been arrested;

- 5% of students who failed courses had been physically or sexually abused, but 2% of students who had not failed courses had been physically or sexually abused.

- More than 75% of students who failed courses in school had low grades in school, but 7% of students who had not failed courses had low grades in school;

- 43% of students who failed courses in school were overage in grade, but 14% of students who had not failed courses were overage in grade;

- 44% of students who failed courses had been retained in grade, but 11% of students who had not failed courses had been retained in grade;

- 30% of students who failed courses in school had excessive absences from school, but 5% of students who had not failed courses had excessive absences from school;

- 36% of students who failed courses in school had low self-esteem, but 10% of students who had not failed courses had low self-esteem;

- 16% of students who failed courses in school had been referred to special education, but 9% of students who had not failed courses had been referred to special education;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 26% of students who failed courses in school had low reading scores, but 8% of students who had not failed courses had low reading scores.
- A parent of 6% of students who failed courses in school was sick last year, but a parent of 4% of students who had not failed courses in school was sick last year;
- a parent of 1% of students who failed courses in school died last year, and a parent of 1% of students who had not failed courses in school died last year;
- a parent of 6% of students who failed courses in school lost his or her job last year, but a parent of 4% of students who had not failed courses lost his or her job last year;
- 7% of students who failed courses in school had a friend die last year, but 4% of students who had not failed courses in school had a friend die last year;
- 5% of students who failed courses in school were seriously ill or in an accident last year, but 3% of students who had not failed courses in school were seriously ill or in an accident last year;
- 1% of students who failed courses in school had a sibling who died last year, and 0.5% of students who had not failed courses had a sibling die last year.
- Fathers of 23% of students who failed courses in school were unemployed or held low-level jobs, but fathers of 16% of students who had not failed courses were unemployed or held a low-level job;
- fathers of 15% of students who failed courses in school had not graduated from high school, but fathers of 7% of students who had not failed courses had not graduated from high school;
- mothers of 26% of students who failed courses in school were unemployed or held low-level jobs, but mothers of 19% of students who had not failed courses were unemployed or held low-level jobs;
- mothers of 18% of students who failed courses in school had not graduated from high school, but mothers of 7% of students who had not failed courses had not graduated from high school;
- parents of 14% of students who failed courses in school had negative attitudes about education, but parents of 4% of students who had not failed courses had negative attitudes about education;
- 9% of students who failed courses last year lived in a home in which English was not spoken, but 5% of students who had not failed courses lived in a home in which English was not spoken.
- In all, 50% of students who failed courses in school did not live with their real mother and real father, but

33% of students who had not failed courses in school did not live with their real mother and real father;

- 24% of students who failed courses in school moved frequently, but 15% of students who had not failed courses in school moved frequently;
- 25% of students who failed courses in school changed schools frequently, but 23% of students who had not failed courses in school changed schools frequently;
- parents of 10% of students who failed courses in school divorced last year, but parents of 7% of students who had not failed courses in school divorced last year.

Table 22

Comparison of students who were overage in grade with students who were not overage on various risk items

(N = 3,517 and 18,189)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.1	4.6	385.42	.001
Attempted suicide	1.1	.8	3.79	
Involved in pregnancy	1.2	.5	26.11	.001
Student sold drugs	1.3	.4	38.65	.001
Student used drugs	5.9	2.3	131.32	.001
Family used drugs	6.2	2.9	97.10	.001
Student used alcohol	7.6	4.0	82.78	.001
Parent alcoholic	6.3	3.1	86.06	.001
Student arrested	3.0	1.0	94.76	.001
Student abused	3.5	1.6	58.42	.001
Low grades in school	32.1	9.8	1267.50	.001
Failed courses	23.9	6.1	1142.67	.001
Overage in grade	100	0		
Retained in grade	66.1	4.3	9218.39	.001
Excessive absences	15.9	5.2	525.81	.001
Low self-esteem	22.6	10.4	407.33	.001
Referred special education	21.4	7.6	633.15	.001
Low reading scores	22.1	6.9	793.51	.001
Parent sick last year	5.6	3.7	27.16	.001
Parent died last year	1.4	.8	9.51	.002
Parent lost job last year	6.1	3.6	48.60	.001
Friend died last year	6.6	4.2	38.22	.001
Student ill last year	4.6	2.9	27.37	.001
Sibling died last year	1.2	.4	30.05	.001
Father low-level job	24.8	15.3	189.99	.001
Father not high school graduate	14.4	6.5	259.72	.001
Mother low-level job	27.3	18.1	156.53	.001
Mother not high school graduate	15.9	6.9	316.37	.001
Parents' attitude negative	9.7	4.1	190.46	.001
Language not English	8.0	4.3	88.02	.001
Broken home	47.9	32.0	329.90	.001
Moved frequently	22.2	14.6	128.95	.001
Changed schools frequently	28.0	22.5	50.27	.001
Parents divorced last year	8.2	6.6	11.54	.001

OVERAGE IN GRADE VERSUS NOT OVERAGE IN GRADE

- 13%* of students overage in grade had been suspended from school, but 5% of students not overage in grade had been suspended from school;
- 1% of students overage in grade attempted suicide, and 1% of students not overage in grade attempted suicide;
- 1% of students overage in grade were involved in a pregnancy, but 0.5% of students not overage in grade were involved in a pregnancy;
- 1% of students overage in grade sold drugs, but 0.4% of students not overage in grade sold drugs;
- 6% of students overage in grade used drugs, but 2% of students not overage in grade used drugs;
- 6% of students overage in grade lived in a family that used drugs, but 3% of students not overage in grade lived in a family that used drugs;
- 8% of students overage in grade used alcohol, but 4% of students not overage in grade used alcohol;
- 6% of students overage in grade had an alcoholic parent, but 3% of students not overage in grade had an alcoholic parent;
- 3% of students overage in grade had been arrested, but 1% of students not overage in grade had been arrested;
- 4% of students overage in grade had been physically or sexually abused, but 2% of students not overage in grade had been physically or sexually abused.
- Almost a third (32%) of students who were overage in grade had low grades in school, but 10% of students who were not overage in grade had low grades in school;
- 24% of students who were overage in grade failed courses in school, but 6% of students who were not overage in grade failed courses in school;
- 66% of students who were overage in grade had been retained in grade, but 4% of students who were not overage had been retained in grade;
- 16% of students who were overage in grade had excessive absences from school, but 5% of students who were not overage in grade had excessive absences from school;
- 23% of students who were overage in grade had low self-esteem, but 10% of students who were not overage in grade had low self-esteem;
- 21% of students who were overage in grade had been referred to special education, but 8% of students who were not overage in grade had been referred to special education;
- 22% of students who were overage in grade had low reading scores, but 7% of students who were not overage in grade had low reading scores.

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- Parents of 6% of students who were overage in grade were sick last year, but parents of 4% of students who were not overage in grade were sick last year;

- a parent of 1% of students who were overage in grade died last year, and a parent of 1% of students who were not overage in grade died last year;

- a parent of 6% of students who were overage in grade lost his or her job last year, but a parent of 4% of students who were not overage in grade lost his or her job last year;

- 7% of students who were overage in grade had a friend die last year, but 4% of students who were not overage in grade had a friend die last year;

- 5% of students who were overage in grade were seriously ill or in an accident last year, but 3% of students who were not overage in grade were seriously ill or in an accident last year;

- 1% of students who were overage in grade had a sibling die last year, but less than 0.5% of students who were not overage in grade had a sibling die last year.

- Fathers of 25% of students who were overage in grade were unemployed or held low-level jobs, but fathers of 15% of students who were not overage were unemployed or held low-level jobs;

- fathers of 14% of students who were overage in grade had not graduated from high school, but fathers of 7% of students who were not overage in grade had not graduated from high school;

- mothers of 27% of students who were overage in grade were unemployed or held a low-level job, but mothers of 18% of students who were not overage in grade were unemployed or held low-level job;

- mothers of 16% of students who were overage in grade had not graduated from high school, but mothers of 7% of students who were not overage in grade had not graduated from high school;

- parents of 10% of students who were overage in grade had negative attitudes about education, but parents of 4% of students who were not overage in grade had negative attitudes about education;

- 8% of students who were overage in grade lived in a home in which English was not spoken, but 4% of students who were not overage in grade lived in a home in which English was not spoken.

- In all, 48% of students who were overage in grade did not live with their real mother and real father, but 32% of students who were not overage in grade did not live with real mother and real father;

- 22% of students who were overage in grade moved frequently, but 15% of students who were not overage in grade moved frequently;

- 28% of students who were overage in grade changed schools frequently, but 23% of students who were not overage in grade changed schools frequently;
- parents of 8% of students who were overage in grade divorced last year, but parents of 7% of students who were not overage in grade divorced last year.

Table 23

Comparison of students who were retained in grade with those who were not retained on various risk items

(N = 3,100 and 18,606)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	15.0	4.4	534.49	.001
Attempted suicide	1.4	.7	13.31	.001
Involved in pregnancy	1.5	.4	49.34	.001
Student sold drugs	1.7	.4	80.50	.001
Student used drugs	6.7	2.3	184.55	.001
Family used drugs	7.5	2.8	176.58	.001
Student used alcohol	8.6	3.9	146.44	.001
Parent alcoholic	7.8	2.9	182.77	.001
Student arrested	3.4	.9	121.10	.001
Student abused	4.2	1.5	109.31	.001
Low grades in school	36.2	9.6	1617.51	.001
Failed courses	27.3	5.9	1496.15	.001
Overage in grade	75.0	6.4	9218.39	.001
Retained in grade	100	0		
Excessive absences	16.5	5.3	517.68	.001
Low self-esteem	24.7	10.3	510.15	.001
Referred special education	23.0	7.6	708.74	.001
Low reading scores	24.5	6.9	969.60	.001
Parent sick last year	6.0	3.7	35.61	.001
Parent died last year	1.5	.8	14.59	.001
Parent lost job last year	7.0	3.5	82.68	.001
Friend died last year	7.5	4.1	67.15	.001
Student ill last year	5.5	2.8	60.11	.001
Sibling died last year	1.4	.4	47.59	.001
Father low-level job	26.0	15.3	215.70	.001
Father not high school graduate	16.7	6.2	410.43	.001
Mother low-level job	29.0	18.1	200.08	.001
Mother not high school graduate	17.8	6.8	427.65	.001
Parents' attitude negative	11.5	3.9	317.38	.001
Language not English	6.9	4.6	30.57	.001
Broken home	50.8	31.9	421.17	.001
Moved frequently	22.2	14.7	111.79	.001
Changed schools frequently	27.7	22.6	39.01	.001
Parents divorced last year	9.3	6.4	32.29	.001

RETAINED IN GRADE VERSUS NOT RETAINED IN GRADE

- 15%* of students who had been retained in grade had been suspended from school, but 4% of students who had not been retained in grade had been suspended from school;

- 1% of students who had been retained in grade attempted suicide, and 1% of students who had not been retained in grade attempted suicide;

- 2% of students who had been retained in grade were involved in a pregnancy, but 0.4% of students who had not been retained in grade were involved in a pregnancy;

- 2% of students who had been retained in grade sold drugs, but 0.4% of students who had not been retained in grade sold drugs;

- 7% of students who had been retained in grade used drugs, but 2% of students who had not been retained in grade used drugs;

- 8% of students who had been retained in grade lived in a family that used drugs, but 3% of students who had not been retained in grade lived in a family that used drugs;

- 9% of students who had been retained in grade used alcohol, but 4% of students who had not been retained in grade used alcohol;

- 8% of students who had been retained in grade had a parent who drank excessively, but 3% of students who had not been retained in grade had a parent who drank excessively;

- 3% of students who had been retained in grade had been arrested, but 1% of students who had not been retained in grade had been arrested;

- 4% of students who had been retained in grade had been physically or sexually abused, but 2% of students who had not been retained in grade had been physically or sexually abused.

- More than 36% of students who had been retained in grade had low grades in school, but 10% of students who had not been retained in grade had low grades in school;

- 27% of students who had been retained in grade failed courses in school, but 6% of students who had not been retained in grade failed courses in school;

- 75% of students who had been retained in grade were overage in grade, but 6% of students who had not been retained in grade were overage in grade;

- 17% of students who had been retained in grade had excessive absences from school, but 5% of students who had not been retained in grade had excessive absences from school;

- 25% of students who had been retained in grade had low self-esteem, but 10% of students who had not been retained in grade had low self-esteem;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 23% of students who had been retained in grade had been referred to special education, but 8% of students who had not been retained in grade had been referred to special education;
- 25% of students who had been retained in grade had low reading scores, but 7% of students who had not been retained in grade had low reading scores.
- A parent of 6% of students who had been retained in grade was sick last year, but a parent of 4% of students who had not been retained in grade was sick last year;
- a parent of 2% of students who had been retained in grade died last year, but a parent of 1% of students who had not been retained in grade died last year;
- a parent of 7% of students who had been retained in grade lost his or her job last year, but a parent of 4% of students who had not been retained in grade lost his or her job last year;
- 8% of students who had been retained had a friend die last year, but 4% of students who had not been retained had a friend die last year;
- 6% of students who had been retained were seriously ill or in an accident last year, but 3% of students who had not been retained were seriously ill or in an accident last year;
- 1% of students who had been retained had a sibling die last year, but 0.4% of students who had not been retained had a sibling die last year.
- Fathers of 26% of students who had been retained in grade were unemployed or held a low-level job, but fathers of 15% of students who had not been retained in grade were unemployed or held a low-level job;
- fathers of 17% of students who had been retained in grade had not graduated from high school, but fathers of 6% of students who had not been retained in grade had not graduated from high school;
- mothers of 29% of students who had been retained in grade were unemployed or held a low-level job, but mothers of 18% of students who had not been retained were unemployed or held a low-level job;
- mothers of 18% of students who had been retained in grade had not graduated from high school, but mothers of 7% of students who had not been retained had not graduated from high school;
- parents of 12% of students who had been retained in grade had negative attitudes toward education, but parents of 4% of students who had not been retained in grade had negative attitudes toward education;
- 7% of students who had been retained in grade lived in a home in which English was not spoken, but 5% of students who had not been re-

tained in grade lived in a home in which English was not spoken.

- In terms of family stability, 51% of students who had been retained in grade did not live with real mother and real father, but 32% of students who had not been retained in grade did not live with real mother and real father;

- 22% of students who had been retained in grade moved frequently, but 15% of students who had not been retained in grade moved frequently;

- 28% of students who had been retained in grade changed schools frequently, but 23% of students who had not been retained in grade changed schools frequently;

- parents of 9% of students who had been retained in grade divorced last year, but parents of 6% of students who had not been retained in grade divorced last year.

Table 24

Comparison of students who had excessive absences with students who did not have excessive absences on various risk items

(N = 1,497 and 20,209)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	23.6	4.6	901.59	.001
Attempted suicide	3.1	.6	102.29	.001
Involved in pregnancy	2.8	.4	141.32	.001
Student sold drugs	3.7	.3	278.61	.001
Student used drugs	12.2	2.2	486.25	.001
Family used drugs	9.6	3.0	183.64	.001
Student used alcohol	12.3	4.0	215.11	.001
Parent alcoholic	8.7	3.2	118.82	.001
Student arrested	6.5	.9	340.09	.001
Student abused	4.7	1.7	68.95	.001
Low grades in school	46.7	10.9	1538.13	.001
Failed courses	38.5	6.8	1726.28	.001
Overage in grade	37.3	14.6	525.81	.001
Retained in grade	34.1	12.8	517.68	.001
Excessive absences	100	0		
Low self-esteem	30.9	11.0	510.48	.001
Referred special education	15.4	9.4	56.22	.001
Low reading scores	18.7	8.7	164.22	.001
Parent sick last year	5.9	3.9	13.93	.001
Parent died last year	1.4	.9	4.28	
Parent lost job last year	7.5	3.7	50.61	.001
Friend died last year	6.1	4.5	8.76	.003
Student ill last year	8.4	2.8	140.20	.001
Sibling died last year	1.0	.5	6.24	.01
Father low-level job	24.0	16.3	59.32	.001
Father not high school graduate	14.2	7.3	92.86	.001
Mother low-level job	28.8	18.9	85.62	.001
Mother not high school graduate	17.2	7.7	164.23	.001
Parents' attitude negative	13.9	4.4	265.91	.001
Language not English	7.3	4.7	20.35	.001
Broken home	51.3	33.3	198.87	.001
Moved frequently	21.5	15.4	39.22	.001
Changed schools frequently	25.8	23.2	5.33	.02
Parents divorced last year	12.0	6.5	66.19	.001

HAD EXCESSIVE ABSENCES VERSUS ABSENCES NOT EXCESSIVE

- 24%* of students with excessive absences had been suspended from school, but 5% of students who had not had excessive absences had been suspended from school;
- 3% of students with excessive absences attempted suicide, but 1% of students who had not had excessive absences attempted suicide;
- 3% of students with excessive absences were involved in a pregnancy, but 0.4% of students who had not had excessive absences were involved in a pregnancy;
- 4% of students with excessive absences sold drugs, but 0.3% of students who had not had excessive absences sold drugs;
- 12% of students with excessive absences used drugs, but 2% of students who had not had excessive absences used drugs;
- 10% of students with excessive absences lived in a family that used drugs, but 3% of students who had not had excessive absences lived in a family that used drugs;
- 12% of students with excessive absences used alcohol, but 4% of students who had not had excessive absences used alcohol;
- 9% of students with excessive absences had an alcoholic parent, but 3% of students who had not had excessive absences had an alcoholic parent;
- 7% of students with excessive absences had been arrested, but 1% of students who had not had excessive absences had been arrested;
- 5% of students with excessive absences had been physically or sexually abused, but 2% of students who had not had excessive absences had been abused.
- The data indicated that 47% of students who had excessive absences had low grades in school, but 11% of students who had not had excessive absences had low grades in school;
- 39% of students who had excessive absences failed courses in school, but 7% of students who had not had excessive absences failed courses in school;
- 37% of students who had excessive absences were overage in grade, but 15% of students who had not had excessive absences were overage in grade;
- 34% of students who had excessive absences had been retained in grade, but 13% of students who had not had excessive absences had been retained in grade;
- 31% of students who had excessive absences had low self-esteem, but 11% of students who had not had ex-

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

cessive absences had low self-esteem;

- 15% of students who had excessive absences had been referred to special education, but 9% of students who had not had excessive absences had been referred to special education;
- 19% of students who had excessive absences had low reading scores, but 9% of students who had not had excessive absences had low reading scores.
- Parents of 6% of students who had excessive absences were sick last year, but parents of 4% of students who had not had excessive absences were sick last year;
- 1% of students who had excessive absences had a parent die last year, and 1% of students who had not had excessive absences had a parent die last year;
- a parent of 8% of students who had excessive absences lost his or her job last year, but a parent of 4% of students who had not had excessive absences lost his or her job last year;
- 6% of students who had excessive absences had a friend die last year, but 5% of students who had not had excessive absences had a friend die last year;
- 8% of students who had excessive absences were seriously ill or in an accident last year, but 3% of students who had not had excessive absences were seriously ill or in an accident last year;
- 1% of students who had excessive absences had a sibling die last year, but 0.5% of students who had not had excessive absences had a sibling die last year.
- Fathers of 24% of students who had excessive absences were unemployed or held a low-level job, but fathers of 16% of students who had not had excessive absences were unemployed or held a low-level job;
- fathers of 14% of students who had excessive absences had not graduated from high school, but fathers of 7% of students who had not had excessive absences had not graduated from high school;
- mothers of 29% of students who had excessive absences were unemployed or held a low-level job, but mothers of 19% of students who had not had excessive absences were unemployed or held a low-level job;
- mothers of 17% of students who had excessive absences had not graduated from high school, but mothers of 8% of students who had not had excessive absences had not graduated from high school;
- the parents of 14% of students who had excessive absences had negative attitudes about education, but parents of 4% of students who had not had excessive absences had negative attitudes about education;
- 7% of students who had excessive absences lived in a home in which English was not spoken, but 5% of students who had not had excessive

absences lived in a home in which English was not spoken.

- More than half (51%) of students who had excessive absences did not live with real mother and real father, but a third (33%) of students who had not had excessive absences did not live with real mother and real father;
- 22% of students who had excessive absences moved frequently, but 15% of students who had not had excessive absences moved frequently;
- 26% of students who had excessive absences changed schools frequently, but 23% of students who had not had excessive absences changed schools frequently;
- parents of 12% of students who had excessive absences divorced last year, but parents of 7% of students who had not had excessive absences divorced last year.

Table 25

Comparison of students who had low self-esteem with students whose self-esteem was not low on various risk items

(N = 2,686 and 19,020)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	15.0	4.7	450.19	.001
Attempted suicide	2.5	.6	112.86	.001
Involved in pregnancy	1.7	.4	70.30	.001
Student sold drugs	2.2	.3	153.28	.001
Student used drugs	9.9	1.9	524.42	.001
Family used drugs	8.3	2.8	213.26	.001
Student used alcohol	11.7	3.6	352.05	.001
Parent alcoholic	9.7	2.7	328.18	.001
Student arrested	4.2	.9	199.65	.001
Student abused	7.2	1.1	471.77	.001
Low grades in school	38.3	9.9	1636.97	.001
Failed courses	26.3	6.5	1128.82	.001
Overage in grade	29.6	14.3	407.33	.001
Retained in grade	28.6	12.3	510.15	.001
Excessive absences	17.2	5.4	510.48	.001
Low self-esteem	100	0		
Referred special education	20.5	8.3	397.63	.001
Low reading scores	21.6	7.7	540.58	.001
Parent sick last year	5.8	3.8	24.54	.001
Parent died last year	1.3	.9	6.22	.01
Parent lost job last year	7.5	3.5	96.58	.001
Friend died last year	6.3	4.4	19.18	.001
Student ill last year	5.5	2.9	50.45	.001
Sibling died last year	.7	.5	2.29	
Father low-level job	22.9	16.0	78.79	.001
Father not high school graduate	13.5	6.9	141.31	.001
Mother low-level job	28.8	18.3	164.13	.001
Mother not high school graduate	15.1	7.4	182.50	.001
Parents' attitude negative	21.7	2.7	1783.43	.001
Language not English	6.2	4.7	10.49	.001
Broken home	48.5	32.6	263.14	.001
Moved frequently	23.3	14.7	130.64	.001
Changed schools frequently	30.4	22.4	84.68	.001
Parents divorced last year	11.5	6.2	106.51	.001

LOW SELF-ESTEEM VERSUS NOT LOW

- 15%* of students who had low self-esteem had been suspended from school, but 5% of students who did not have low self-esteem had been suspended from school;
- 3% of students who had low self-esteem attempted suicide, but 1% of students who did not have low self-esteem attempted suicide;
- 2% of students who had low self-esteem were involved in a pregnancy, but 0.4% of students who did not have low self-esteem were involved in a pregnancy;
- 2% of students who had low self-esteem sold drugs, but less than 0.5% of students who did not have low self-esteem sold drugs;
- 10% of students who had low self-esteem used drugs, but 2% of students who did not have low self-esteem used drugs;
- 8% of students who had low self-esteem lived in a family that used drugs, but 3% of students who did not have low self-esteem lived in a family that used drugs;
- 12% of students who had low self-esteem used alcohol, but 4% of students who did not have low self-esteem used alcohol;
- 10% of students who had low self-esteem had an alcoholic parent, but 3% of students who did not have low self-esteem had an alcoholic parent;
- 4% of students who had low self-esteem had been arrested, but 1% of students who did not have low self-esteem had been arrested;
- 7% of students who had low self-esteem had been physically or sexually abused, but 1% of students who did not have low self-esteem had been physically or sexually abused.
- More than 38% of students who had low self-esteem had low grades in school, but 10% of students who did not have low self-esteem had low grades in school;
- 26% of students who had low self-esteem failed courses in school, but 7% of students who did not have low self-esteem failed courses in school;
- 30% of students who had low self-esteem were overage in grade, but 14% of students who did not have low self-esteem were overage in grade;
- 29% of students who had low self-esteem had been retained in grade, but 12% of students who did not have low self-esteem had been retained in grade;
- 17% of students who had low self-esteem had excessive absences from school, but 5% of students who did not have low self-esteem had excessive absences from school;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 21% of students who had low self-esteem had been referred to special education, but 8% of students who did not have low self-esteem had been referred to special education;

- 22% of students who had low self-esteem had low reading scores, but 8% of students who did not have low self-esteem had low reading scores.

- Parents of 6% of students who had low self-esteem were sick last year, but parents of 4% of students who did not have low self-esteem were sick last year;

- a parent of 1% of students who had low self-esteem died last year, and a parent of 1% of students who did not have low self-esteem died last year;

- a parent of 8% of students who had low self-esteem lost his or her job last year, but a parent of 4% of students who did not have low self-esteem lost a job last year;

- 6% of students who had low self-esteem had a friend die last year, but 4% of students who did not have low self-esteem had a friend die last year;

- 6% of students who had low self-esteem were seriously ill or in an accident last year, but 3% of students who did not have low self-esteem were seriously ill or in an accident last year;

- 1% of students who had low self-esteem had a sibling die last year, and 1% of students who did not have low self-esteem had a sibling die last year.

- Fathers of 23% of students who had low self-esteem were unemployed or held a low-level job, but fathers of 16% of students who had low self-esteem were unemployed or held a low-level job;

- fathers of 14% of students who had low self-esteem had not graduated from high school, but fathers of 7% of students who did not have low self-esteem had not graduated from high school;

- mothers of 29% of students who had low self-esteem were unemployed or held a low-level job, but mothers of 18% of students who did not have low self-esteem were unemployed or held a low-level job;

- mothers of 15% of students who had low self-esteem had not graduated from high school, but mothers of 7% of students who did not have low self-esteem had not graduated from high school;

- parents of 22% of students who had low self-esteem had a negative attitude about education, but parents of 3% of students who did not have low self-esteem had a negative attitude about education;

- 6% of students who had low self-esteem lived in a home in which English was not spoken, but 5% of students who did not have low self-esteem lived in a home in which English was not spoken;

- In all, 49% of students who had low self-esteem did not live with real mother and real father, but 33% of students who did not have low self-esteem did not live with real mother and real father;

- 23% of students who had low self-esteem moved frequently, but 15% of students who did not have low self-esteem moved frequently;
- 30% of students who had low self-esteem changed schools frequently, but 22% of students who did not have low self-esteem changed schools frequently;
- parents of 12% of students who had low self-esteem divorced last year, but parents of 6% of students who did not have low self-esteem divorced last year.

Table 26

Comparison of students who were referred to special education with students not referred on various risk items

(N = 2,128 and 19,578)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	11.0	5.4	109.79	.001
Attempted suicide	1.3	.8	6.15	.01
Involved in pregnancy	.8	.5	2.15	
Student sold drugs	1.1	.5	13.51	.001
Student used drugs	5.2	2.7	44.32	.001
Family used drugs	5.1	3.3	19.79	.001
Student used alcohol	6.2	4.4	12.70	.001
Parent alcoholic	5.8	3.4	33.25	.001
Student arrested	2.5	1.2	28.84	.001
Student abused	4.2	1.6	68.70	.001
Low grades in school	27.9	11.8	429.29	.001
Failed courses	15.0	8.3	105.37	.001
Overage in grade	35.3	14.1	633.15	.001
Retained in grade	33.5	12.2	708.74	.001
Excessive absences	10.8	6.5	56.22	.001
Low self-esteem	25.9	10.9	397.63	.001
Referred special education	100	0		
Low reading scores	30.0	7.1	1182.34	.001
Parent sick last year	5.5	3.9	12.84	.001
Parent died last year	1.6	.8	10.64	.001
Parent lost job last year	5.7	3.8	18.36	.001
Friend died last year	5.5	4.5	3.92	
Student ill last year	4.7	3.1	15.77	.001
Sibling died last year	.9	.5	6.85	.01
Father low-level job	21.9	16.3	43.59	.001
Father not high school graduate	10.8	7.4	31.11	.001
Mother low-level job	25.4	19.0	50.26	.001
Mother not high school graduate	11.4	8.0	28.50	.001
Parents' attitude negative	8.8	4.6	72.15	.001
Language not English	5.0	4.9	.06	
Broken home	40.6	33.9	38.46	.001
Moved frequently	17.6	15.6	5.51	
Changed schools frequently	25.2	23.1	4.69	.03
Parents divorced last year	8.5	6.7	9.74	.002

REFERRED TO SPECIAL EDUCATION VERSUS NOT REFERRED

- 11%* of students referred to special education had been suspended from school, but 5% of students not referred to special education had been suspended from school;

- 1% of students referred to special education attempted suicide, and 1% of students not referred attempted suicide;

- 1% of students referred to special education were involved in a pregnancy, but 0.5% of students not referred to special education were involved in a pregnancy;

- 1% of students referred to special education sold drugs, but 0.5% of students not referred sold drugs;

- 5% of students referred to special education used drugs, but 3% of students not referred used drugs;

- 5% of students referred to special education lived in a family that used drugs, but 3% of students not referred to special education lived in a family that used drugs;

- 6% of students referred to special education used alcohol, but 4% of students not referred used alcohol;

- 6% of students referred to special education had an alcoholic parent, but 3% of students not referred to special education had an alcoholic parent;

- 3% of students referred to special education had been arrested, but 1% of students not referred had been arrested;

- 4% of students referred to special education had been physically or sexually abused, but 2% of students not referred to special education had been physically or sexually abused.

- The data indicated that 28% of students who had been referred to special education had low grades in school, but 12% of students who had not been referred had low grades in school;

- 15% of students who had been referred to special education failed courses in school, but 8% of students who had not been referred failed courses in school;

- 35% of students who had been referred to special education were overage in grade, but 14% of students who had not been referred were overage in grade;

- 34% of students who had been referred to special education had been retained in grade, but 12% of students who had not been referred had been retained in grade;

- 11% of students who had been referred to special education had excessive absences from school, but 7% of students who had not been referred had excessive absences from school;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 26% of students who had been referred to special education had low self-esteem, but 11% of students who had not been referred had low self-esteem;

- 30% of students who had been referred to special education had low reading scores, but 7% of students who had not been referred had low reading scores.

- Parents of 6% of students who had been referred to special education were sick last year, but parents of 4% of students who had not been referred were sick last year;

- a parent of 2% of students who had been referred to special education died last year, but a parent of 1% of students who had not been referred died last year;

- a parent of 6% of students who had been referred to special education lost his or her job last year, but a parent of 4% of students who had not been referred to special education lost his or her job last year;

- 6% of students who had been referred to special education had a friend die last year, but 5% of students who had not been referred had a friend die last year;

- 5% of students who had been referred to special education were seriously ill or in an accident last year, but 3% of students who had not been referred to special education were seriously ill or in an accident last year;

- 1% of students who had been referred to special education had a sibling die last year, but 0.5% of students who had not been referred to special education had a sibling die last year.

- Fathers of 22% of students who had been referred to special education were unemployed or held a low-level job, but fathers of 16% of students who had not been referred were unemployed or held a low-level job;

- fathers of 11% of students who had been referred to special education had not graduated from high school, but fathers of 7% of students who had not been referred to special education had not graduated from high school;

- mothers of 25% of students who had been referred to special education were unemployed or held a low-level job, but mothers of 19% of students who had not been referred were unemployed or held a low-level job;

- mothers of 11% of students who had been referred to special education had not graduated from high school, but mothers of 8% of students who had not been referred to special education had not graduated from high school;

- parents of 9% of students who had been referred to special education had a negative attitude about education, but parents of 5% of students who had not been referred had a negative attitude about education;

- parents of 5% of students who had been referred to special education lived in a home in which English was not spoken, and parents of 5% of students who had not been referred to special education lived in a home in which English was not spoken.

- More than 40% of students who had been referred to special education did not live with real mother and real father, but 34% of students who had not been referred to special education did not live with real mother and real father;
- 18% of students who had been referred to special education moved frequently, but 16% of students who had not been referred moved frequently;
- 25% of students who had been referred to special education changed schools frequently, but 23% of students who had not been referred to special education changed schools frequently;
- parents of 9% of students who had been referred to special education divorced last year, but parents of 7% of students who had not been referred to special education divorced last year.

Table 27

Comparison of students who had low reading scores with students who did not have low scores on various risk items

(N = 2,037 and 19,669)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	11.0	5.4	102.70	.001
Attempted suicide	.7	.8	.43	
Involved in pregnancy	1.0	.5	6.67	.01
Student sold drugs	1.2	.5	17.80	.001
Student used drugs	4.5	2.7	20.48	.001
Family used drugs	5.3	3.3	23.12	.001
Student used alcohol	4.8	4.6	.11	
Parent alcoholic	6.1	3.4	41.15	.001
Student arrested	2.6	1.2	28.15	.001
Student abused	4.3	1.6	70.58	.001
Low grades in school	37.4	10.9	1113.94	.001
Failed courses	25.0	7.3	708.56	.001
Overage in grade	38.1	13.9	793.51	.001
Retained in grade	37.3	11.9	969.60	.001
Excessive absences	13.7	6.2	164.22	.001
Low self-esteem	28.5	10.4	540.58	.001
Referred special education	31.4	7.6	1182.34	.001
Low reading scores	100	0		
Parent sick last year	4.3	4.0	.29	
Parent died last year	1.6	.8	10.79	.001
Parent lost job last year	6.0	3.8	24.22	.001
Friend died last year	6.5	4.4	18.16	.001
Student ill last year	4.3	3.1	8.90	.003
Sibling died last year	.7	.5	.85	
Father low-level job	27.4	15.8	178.05	.001
Father not high school graduate	13.9	7.1	119.19	.001
Mother low-level job	28.5	18.7	112.79	.001
Mother not high school graduate	14.9	7.7	125.88	.001
Parents' attitude negative	12.1	4.3	235.10	.001
Language not English	8.9	4.5	75.80	.001
Broken home	45.5	33.4	117.71	.001
Moved frequently	19.5	15.4	23.46	.001
Changed schools frequently	25.7	23.1	7.10	.01
Parents divorced last year	8.5	6.7	9.68	.002

LOW READING SCORES VERSUS READING SCORES NOT LOW

- 11%* of students who had low reading scores had been suspended from school, but 5% of students whose reading scores were not low had been suspended from school;

- 1% of students who had low reading scores had attempted suicide, and 1% of students whose reading scores were not low had attempted suicide;

- 1% of students who had low reading scores were involved in a pregnancy, but 0.5% of students whose reading scores were not low were involved in a pregnancy;

- 1% of students who had low reading scores sold drugs, but 0.5% of students whose reading scores were not low sold drugs;

- 5% of students who had low reading scores used drugs, but 3% of students whose reading scores were not low used drugs;

- 5% of students who had low reading scores lived in a family that used drugs, but 3% of students whose reading scores were not low lived in a family that used drugs;

- 5% of students whose reading scores were low used alcohol, and 5% of students whose reading scores were not low used alcohol;

- 6% of students who had low reading scores had an alcoholic parent, but 3% of students whose reading scores were not low had an alcoholic parent;

- 3% of students whose reading scores were low had been arrested, but 1% of students whose reading scores were not low had been arrested;

- 4% of students whose reading scores were low had been physically or sexually abused, but 2% of students whose reading scores were not low had been physically or sexually abused.

- There were 37% of students whose reading scores were low who had low grades in school, but 11% of students whose reading scores were not low had low grades in school;

- 25% of students whose reading scores were low failed courses in school, but 7% of students whose reading scores were not low failed courses in school;

- 38% of students whose reading scores were low were overage in grade, but 14% of students whose reading scores were not low were overage in grade;

- 37% of students whose reading scores were low had been retained in grade, but 12% of students whose reading scores were not low had been retained in grade;

- 14% of students whose reading scores were low had excessive absences from school, but 6% of students whose reading scores were not low had excessive absences from school;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 29% of students whose reading scores were low had low self-esteem, but 10% of students whose reading scores were not low had low self-esteem;
- 31% of students whose reading scores were low had been referred to special education, but 8% of students whose reading scores were not low had been referred to special education.
- a parent of 4% of students whose reading scores were low was sick last year, and a parent of 4% of students whose reading scores were not low was sick last year;
- a parent of 2% of students whose reading scores were low died last year, but a parent of 1% of students whose reading scores were not low died last year;
- a parent of 6% of students whose reading scores were low lost his or her job last year, but a parent of 4% of students whose reading scores were not low lost his or her job last year;
- 7% of students whose reading scores were low had a friend die last year, but 4% of students whose reading scores were not low had a friend die last year;
- 4% of students whose reading scores were low were seriously ill or in an accident last year, but 3% of students whose reading scores were not low were seriously ill or in an accident last year;
- 1% of students whose reading scores were low had a sibling die last year, and 0.5% of students whose reading scores were not low had sibling die last year.
- Fathers of 27% of students whose reading scores were low were unemployed or held a low-level job, but fathers of 16% of students whose reading scores were not low were unemployed or held a low-level job;
- fathers of 14% of students whose reading scores were low had not graduated from high school, but fathers of 7% of students whose reading scores were not low had not graduated from high school;
- mothers of 29% of students whose reading scores were low were unemployed or held a low-level job, but mothers of 19% of students whose reading scores were not low were unemployed or held a low-level job;
- mothers of 15% of students whose reading scores were low had not graduated from high school, but mothers of 8% of students whose reading scores were not low had not graduated from high school;
- parents of 12% of students who had low reading scores had negative attitudes toward education, but parents of 4% of students whose reading scores were not low had negative attitudes toward education;

- 9% of students whose reading scores were low lived in a home in which English was not spoken, but 5% of students whose reading scores were not low lived in a home in which English was not spoken.

- Regarding the home, 46% of students whose reading scores were low did not live with their real mother and real father, but 33% of students whose reading scores were not low did not live with their real mother and real father;

- 20% of students whose reading scores were low moved frequently, but 15% of students whose reading scores were not low moved frequently;

- 26% of students whose reading scores were low changed schools frequently, but 23% of students whose reading scores were not low changed schools frequently;

- parents of 9% of students whose reading scores were low divorced last year, but parents of 7% of students whose reading scores were not low divorced last year.

SUMMARY

In this appendix we compared students who were at risk on one item with students who were not at risk on that item on 33 other items about which we collected information. These comparisons were made on the eight items that a factor analysis suggested comprised one factor, academic failure. More details are described in tables 20 through 27 in appendix D, and charts 35 to 68 in appendix G, volume 2.

In all, 264 comparisons were presented here. It is important to note that 99% of the comparisons of the academic failure items were in the same direction: students at risk on one item were also at risk on other items. Further, in 88% of the comparisons, the differences were significant statistically (.001). The pattern of differences described here, much like the patterns described in other appendices, suggests that students at risk on one item were about twice as likely to be at risk on other items as students not at risk on that item. Risks were related, even though they were specific.

APPENDIX D

RISK AND FAMILY TRAGEDY COMPARISONS

The information about 21,706 students provided by teachers and counselors to researchers on the 45-item scale that had been developed from a review of 115 research studies was subjected to factor analysis. Five factors emerged:

- personal pain
- academic failure
- family tragedy
- family socioeconomic situation
- family instability

As a result of logical and empirical considerations, the 45-item scale was reduced to a 34-item scale. Eventually, some of the 34 items were combined to produce a 24-item scale, but the results presented here were based on multiple analyses of the 34-item scale.

The description that follows organizes the discussion around each of the items associated with one of the five factors cited above – family tragedy. Students were separated (students at risk versus no evidence of risk) on one of six items associated with the family tragedy factor, then compared on all of the other items on the scale.

FAMILY TRAGEDY

The six items that comprised the family tragedy factor were:

- parent sick last year
- parent died last year
- parent lost job last year
- friend died last year
- student was ill last year
- sibling died last year

Reading about these comparisons is slow and laborious, but the evidence is overwhelming: students at risk on one item were much more likely to be at risk on the other items than students not at risk on the first item. If you want to extend the comparison, the narrative analysis that follows parallels the tabular descriptions, presented below and in volume 2 (appendix D, tables 28 through 33, and graphic descriptions in appendix G, charts 69 through 102).

Table 28

Comparison of students whose parents were sick in last year with students whose parents were not sick in last year on various risk items

(N = 878 and 20,828)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.2	5.6	86.49	.001
Attempted suicide	4.9	.6	190.01	.001
Involved in pregnancy	2.2	.5	40.87	.001
Student sold drugs	1.7	.5	21.52	.001
Student used drugs	7.7	2.7	75.61	.001
Family used drugs	15.1	3.0	375.80	.001
Student used alcohol	11.0	4.3	85.96	.001
Parent alcoholic	14.9	3.1	336.10	.001
Student arrested	4.2	1.2	61.45	.001
Student abused	8.2	1.6	199.75	.001
Low grades in school	16.2	13.3	6.12	.01
Failed courses	13.4	8.8	22.56	.001
Overage in grade	22.6	15.9	27.16	.001
Retained in grade	21.2	14.0	35.61	.001
Excessive absences	10.0	6.8	13.92	.001
Low self-esteem	17.8	12.1	24.54	.001
Referred special education	13.3	9.7	12.84	.001
Low reading scores	9.9	9.4	.30	
Parent sick last year	100	0		
Parent died last year	7.6	.6	456.99	.001
Parent lost job last year	17.4	3.4	428.94	.001
Friend died last year	20.8	3.9	550.50	.001
Student ill last year	15.8	2.7	468.51	.001
Sibling died last year	3.2	.4	118.44	.001
Father low-level job	22.1	16.6	17.92	.001
Father not high school graduate	15.3	7.4	72.51	.001
Mother low-level job	22.2	19.5	3.87	
Mother not high school graduate	15.9	8.0	69.39	.001
Parents' attitude negative	6.9	4.9	7.16	.01
Language not English	6.2	4.9	2.98	
Broken home	47.5	34.0	67.51	.001
Moved frequently	29.2	15.2	122.43	.001
Changed schools frequently	28.5	23.1	13.43	.001
Parents divorced last year	15.6	6.5	110.41	.001

PARENT SICK VERSUS NOT SICK

- 13%* of the students who had a sick parent were suspended from school, but 6% of students whose parents were not sick were suspended from school;

- 5% of the students who had a sick parent attempted suicide, but less than 1% of students whose parent was not sick attempted suicide;

- 2% of students whose parent was sick were involved in a pregnancy, but 0.5% of students whose parents were not sick were involved in a pregnancy;

- 2% of students who had a sick parent sold drugs; but less than 1% of students whose parents were not sick sold drugs;

- 8% of students who had a sick parent used drugs, but 3% of those whose parents were not sick used drugs;

- 15% of students who had a sick parent lived in a family in which family members used drugs, but 3% of students whose parent was not sick lived with family members who used drugs;

- 11% of students who had a sick parent used alcohol, but 4% of students whose parents were not sick used alcohol;

- 15% of students who had a sick parent had a parent who was an alcoholic, but 3% of students whose parents were not sick had an alcoholic parent;

- 4% of students who had a sick parent were arrested, but 1% of those whose parents were not sick were arrested;

- 8% of students who had a sick parent were physically or sexually abused, but 2% of those whose parents were not sick were abused.

- Regarding school, 16% of students who had a sick parent had low grades in school, but 13% of those whose parents were not sick had low grades in school;

- 13% of students who had a sick parent failed courses in school; but 9% of those whose parents were not sick failed courses;

- 23% of students who had a sick parent were overage in grade, but 16% of students whose parents were not sick were overage in grade;

- 21% of students who had a sick parent had been retained in grade, but 14% of those whose parents were not sick had been retained in grade;

- 10% of students who had a sick parent had excessive absences from school, but 7% of those whose parents were not sick had excessive absences;

- 18% of students who had a sick parent had low self-esteem, but 12% of students whose parents were not sick had low self-esteem;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 13% of students who had a sick parent were referred to special education, but 10% of those whose parents were not sick were referred to special education;

- 10% of students who had a sick parent had low reading scores, but 9% of students who did not have a sick parent had low reading scores.

- In all, 8% of students who had a sick parent had a parent die last year, but 1% of those whose parents were not sick had a parent die;

- 17% of students who had a sick parent had a parent who lost his or her job last year, but 3% of those whose parents were not sick had a parent who lost a job;

- 21% of students who had a sick parent had a friend who died last year, but 4% of those whose parents were not sick had a friend who died;

- 16% of students who had a parent who was sick last year were seriously ill themselves or in an accident, but 3% of students whose parents were not sick were seriously ill or in an accident;

- 3% of the students who had a sick parent had a sibling who died last year, but less than 0.5% of those whose parents were not sick had a sibling who died.

- Fathers of 22% of the students who had a parent who was sick last year were unemployed or had an unskilled laborer's job, but fathers of 17% of those whose parents were not sick last year were unemployed or worked in a low-level job;

- fathers of 15% of students who had a parent who was sick had not graduated from high school, but fathers of 7% of those whose parents were not sick had not graduated from high school;

- mothers of 22% of students who had a sick parent were unemployed or held a low-level job, but mothers of 20% of students whose parents were not sick were unemployed or held a low-level job;

- mothers of 16% of students who had a parent sick last year had not graduated from high school, but mothers of 8% of students whose parents had not been sick had not graduated from high school;

- parents of 7% of students whose parents had been sick had a negative attitude toward education, but parents of 5% of students whose parents had not been sick had a negative attitude toward education;

- 6% of students who had parents who had been sick lived in a home in which English was not the language spoken, but 5% of students whose parents had not been sick lived in a home in which English was not spoken.

- Regarding the home situation, 48% of students whose parent had been sick did not live with the real mother and real father, but 34% of students whose parents had not been sick did not live with the real mother and real father;

- 29% of students who had a parent who had been sick moved frequently, but 15% of students whose parents had not been sick moved frequently;
- 29% of students who had a sick parent changed schools frequently, but 23% of students whose parents had not been sick changed schools frequently;
- parents of 16% of students who had a sick parent got divorced last year, but parents of 7% of students whose parents were not sick got divorced last year.

Table 29

Comparison of students whose parent died last year with those whose parent did not die on various risk items

(N = 198 and 21,508)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	11.6	5.9	11.50	.001
Attempted suicide	3.5	.8	18.44	.001
Involved in pregnancy	0	.6	1.15	
Student sold drugs	3.0	.5	21.78	.001
Student used drugs	5.6	2.9	4.94	
Family used drugs	9.6	3.4	22.65	.001
Student used alcohol	6.1	4.6	.95	
Parent alcoholic	8.6	3.6	14.20	.001
Student arrested	3.0	1.3	4.75	
Student abused	3.5	1.9	3.02	
Low grades in school	15.2	13.4	.54	
Failed courses	12.6	8.9	3.30	
Overage in grade	24.2	16.1	9.51	.002
Retained in grade	23.7	14.2	14.60	.001
Excessive absences	10.6	6.9	4.28	
Low self-esteem	18.2	12.3	6.22	.01
Referred special education	16.7	9.7	10.64	.001
Low reading scores	16.2	9.3	10.79	.001
Parent sick last year	33.8	3.8	456.99	.001
Parent died last year	100	0		
Parent lost job last year	11.1	3.9	26.27	.001
Friend died last year	11.1	4.5	19.33	.001
Student ill last year	9.6	3.2	26.21	.001
Sibling died last year	5.6	.5	92.84	.001
Father low-level job	14.6	16.9	.70	
Father not high school graduate	8.1	7.7	.03	
Mother low-level job	23.2	19.6	1.65	
Mother not high school graduate	13.6	8.3	7.35	.01
Parents' attitude negative	8.6	5.0	5.34	
Language not English	6.6	4.9	1.16	
Broken home	80.8	34.2	188.81	.001
Moved frequently	29.8	15.7	29.37	.001
Changed schools frequently	31.8	23.3	8.01	.01
Parents divorced last year	9.1	6.8	1.59	

PARENT DIED VERSUS DID NOT DIE

- 12%* of students who had a parent who died last year were suspended from school, but 6% of students whose parent did not die were suspended from school;

- 4% of students who had a parent who died last year attempted suicide, but 1% of students who did not have a parent who died attempted suicide;

- none of the students who had a parent who died were involved in a pregnancy, but 1% of students whose parents did not die were involved in a pregnancy;

- 3% of students who had a parent who died sold drugs, but 0.5% of the students whose parent did not die sold drugs;

- 6% of students who had a parent die used drugs, but 3% of the students whose parent had not died used drugs;

- 10% of students who had a parent who died lived in a family in which a family member used drugs, but 3% of students whose parent had not died lived in such a family;

- 6% of students who had a parent who died used alcohol, but 5% of students whose parent had not died used alcohol;

- 9% of students who had a parent who died had an alcoholic parent, but 4% of students whose parents had not died had an alcoholic parent;

- 3% of students who had a parent who died were arrested, but 1% of students whose parent had not died were arrested;

- 4% of students who had a parent who died were physically or sexually abused, but 2% of students whose parents had not died were abused.

- In school related areas, 15% of students who had a parent who died last year had low grades in school, but 13% of students whose parent had not died had low grades in school;

- 13% of students who had a parent who died failed courses in school, but 9% of those whose parent had not died failed courses;

- 24% of students who had a parent who died were overage in grade, but 16% of students whose parent had not died were overage in grade;

- 24% of students who had a parent who died last year had been retained in grade, but 14% of students whose parent had not died were retained;

- 11% of students who had a parent who died had excessive absences from school, but 7% of those whose parent had not died had excessive absences;

- 18% of students who had a parent who died last year had low self-

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** Note: Percentage numbers in the narrative analyses are rounded off.*

esteem, but 12% of students who did not have a parent die had low self-esteem;

- 17% of students who had a parent who died were referred to special education, but 10% of students whose parent had not died were referred to special education;
- 16% of students who had a parent who died last year had low reading scores, but 9% of students whose parent had not died had low reading scores.
- A review of the records indicated that 34% of students whose parent died last year had a parent who was sick last year, but 4% of students whose parent had not died had a parent who was sick last year;
- 11% of students whose parent died last year had a parent who lost a job last year, but 4% of students whose parent had not died had a parent who lost his or her job;
- 11% of students who had a parent who died last year had a friend who died, but 5% of those whose parents did not die had a friend who died;
- 10% of students who had a parent die were seriously ill or in an accident last year, but 3% of students who did not have a parent die were seriously ill or in an accident;
- 6% of students who had a parent who died also had a sibling who died last year, but less than 1% of those whose parents did not die had a sibling who died.
- Fathers of 15% of students who had a parent who died were unemployed or worked as an unskilled laborer last year, but the fathers of 17% of those whose parent had not died were unemployed or worked in a low-level job;
- fathers of 8% of students whose parent had died had not graduated from high school, and fathers of 8% of students whose parent had not died had not graduated from high school;
- mothers of 23% of students who had a parent die last year were unemployed or worked in a low-level job, but mothers of 20% of those whose parents had not died were unemployed or worked in a low-level job;
- mothers of 14% of those who had a parent who died last year had not graduated from high school, but mothers of 8% of students whose parents had not died had not graduated from high school;
- the parents of 9% of students who had a parent who died had a negative attitude toward education, but parents of 5% of students whose parents had not died had a negative attitude toward education;
- 7% of students who had a parent who died last year lived in a home in which English was not spoken, but 5% of students whose parents had not died lived in a home in which English was not spoken.
- More than 80% of students who had a parent who died last year came from a broken home situation, but

34% of students whose parents had not died came from a broken home;

- 30% of students who had a parent who died moved frequently, but 16% of those whose parents had not died moved frequently;
- 32% of students who had a parent who died last year changed schools frequently, but 23% of those whose parents had not died changed schools frequently;
- parents of 9% of the students who had a parent who died got a divorce last year, but parents of 7% of students whose parents had not died got a divorce last year.

Table 30

Comparison of students whose parent lost job last year with students whose parent did not lose job on various risk items

(N = 869 and 20,837)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.7	5.6	97.29	.001
Attempted suicide	3.8	.7	100.40	.001
Involved in pregnancy	2.1	.5	35.86	.001
Student sold drugs	1.7	.5	21.95	.001
Student used drugs	7.1	2.7	57.11	.001
Family used drugs	13.5	3.0	272.43	.001
Student used alcohol	11.2	4.3	88.10	.001
Parent alcoholic	15.4	3.1	362.55	.001
Student arrested	4.4	1.2	67.57	.001
Student abused	7.4	1.6	148.89	.001
Low grades in school	20.1	13.1	35.57	.001
Failed courses	14.4	8.7	32.71	.001
Overage in grade	24.7	15.8	48.60	.001
Retained in grade	24.9	13.8	82.68	.001
Excessive absences	12.9	6.6	50.61	.001
Low self-esteem	23.1	11.9	96.58	.001
Referred special education	14.0	9.6	18.36	.001
Low reading scores	14.2	9.2	24.22	.001
Parent sick last year	17.6	3.5	428.94	.001
Parent died last year	2.5	.8	26.27	.001
Parent lost job last year	100	0		
Friend died last year	10.7	4.3	76.90	.001
Student ill last year	10.9	2.9	173.63	.001
Sibling died last year	1.6	.5	19.08	.001
Father low-level job	35.9	16.2	234.30	.001
Father not high school graduate	23.1	7.1	300.27	.001
Mother low-level job	35.3	19.0	141.49	.001
Mother not high school graduate	23.6	7.7	275.80	.001
Parents' attitude negative	10.9	4.8	66.46	.001
Language not English	9.0	4.7	31.93	.001
Broken home	47.6	34.0	68.31	.001
Moved frequently	34.8	15.0	243.98	.001
Changed schools frequently	30.4	23.1	25.01	.001
Parents divorced last year	20.8	6.3	278.23	.001

PARENT LOST JOB VERSUS JOB NOT LOST

- 14%* of students who had a parent who lost his or her job last year were suspended from school, but 6% of students whose parents did not lose their job were suspended from school;

- 4% of students who had a parent who lost a job last year attempted suicide, but 1% of students whose parents did not lose their job attempted suicide;

- 2% of students who had a parent who lost a job last year were involved in a pregnancy, but 0.5% whose parents did not lose a job were involved in a pregnancy;

- 2% of students who had a parent who lost a job last year sold drugs, but less than 1% of students whose parents did not lose a job sold drugs;

- 7% of students who had a parent who lost a job used drugs, but 3% of students whose parents did not lose their job used drugs;

- 14% of students who had a parent who lost a job last year lived in a family in which family members used drugs, but 3% of students whose parents did not lose a job lived in a family in which family members used drugs;

- 11% of students who had a parent who lost his or her job used alcohol, but 4% of those whose parents did not lose their job used alcohol;

- 15% of students who had a parent who lost a job had a parent who drank excessively, but 3% of students whose parents did not lose their job had a parent who drank excessively;

- 4% of students who had a parent who lost a job were arrested, but 1% of students whose parents had not lost a job were arrested;

- 7% of students who had a parent who lost a job were physically or sexually abused, but 2% of students whose parents did not lose a job were abused.

- In all, 20% of students who had a parent who lost a job got low grades in school, but 13% of those whose parents did not lose a job got low grades in school;

- 14% of students who had a parent who lost a job failed courses in school, but 9% of those who had parents who had not lost a job failed courses in school;

- 25% of students who had a parent who lost a job were overage in grade, but 16% of those whose parents had not lost their job were overage in grade;

- 25% of students who had a parent who lost a job had been retained in grade, but 14% of those whose parents had not lost a job had been retained in grade;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 13% of students who had a parent who lost a job had excessive absences from school, but 7% of those whose parents had not lost a job had excessive absences;
- 23% of students who had a parent who lost a job had low self-esteem, but 12% of those whose parents had not lost a job had low self-esteem;
- 14% of students who had a parent who lost his or her job had been referred to special education, but 10% of those whose parents had not lost their job had been referred to special education;
- 14% of students whose parents had lost a job had low reading scores, but 9% of students whose parents had not lost their job had low reading scores.
- The data indicate that 18% of students who had a parent who lost his or her job had a parent who was sick last year, but 4% of students whose parents had not lost their job had a parent who was sick;
- 3% of students who had a parent who lost a job had a parent who died last year, but 1% of students whose parents did not lose their job had a parent who died last year;
- 11% of students who had a parent who lost his or her job last year had a friend who died last year, but 4% of those whose parents did not lose a job had a friend who died;
- 11% of students who had a parent who lost a job last year were seriously ill or in an accident, but 3% of students whose parents did not lose their job were seriously ill or in an accident;
- 2% of students who had a parent who lost a job last year had a sibling who died last year, but 0.5% whose parents did not lose their job had a sibling who died.
- Fathers of 36% of students who had a parent who lost his or her job last year were unemployed or worked as an unskilled laborer, but fathers of 16% of those whose parents had not lost their job last year were unemployed or worked in a low-level job;
- fathers of 23% of students who had a parent who lost a job last year had not graduated from high school, but fathers of 7% of those whose parents had not lost a job had not graduated from high school;
- mothers of 35% of students who had a parent who lost a job were unemployed or worked as an unskilled laborer, but mothers of 19% of students whose parents had not lost a job were unemployed or worked at a low-level job;
- mothers of 24% of students who had a parent who lost his or her job last year had not graduated from high school, but mothers of 8% of students whose parents had not lost a job had not graduated from high school;
- 11% of students who had a parent who lost a job had parents whose at-

titude toward education was negative, but 5% of students whose parents had not lost a job had parents whose attitude toward education was negative;

- 9% of students who had a parent who lost a job lived in a home in which English was not spoken, but 5% of students whose parents had not lost a job lived in a home in which English was not spoken.
- There were 48% of students who had a parent who lost a job last year who did not live with their real mother and real father, but 34% of those whose parents had not lost their job did not live with their real mother and real father;
- 35% of students who had a parent who lost a job moved frequently, but 15% of students whose parents did not lose their job moved frequently;
- 30% of students who had a parent who lost his or her job changed schools frequently, but 23% of students whose parents had not lost their job changed schools frequently;
- 21% of students whose parents lost a job got divorced last year, but 6% of students whose parents did not lose a job got divorced.

Table 31

Comparison of students who had a friend die last year with students who did not on various risk items

(N = 998 and 20,708)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	18.4	5.3	292.12	.001
Attempted suicide	4.7	.6	197.69	.001
Involved in pregnancy	3.0	.5	109.18	.001
Student sold drugs	3.2	.4	130.88	.001
Student used drugs	11.6	2.5	280.84	.001
Family used drugs	13.1	3.0	293.95	.001
Student used alcohol	19.8	3.9	550.60	.001
Parent alcoholic	12.9	3.2	260.66	.001
Student arrested	6.3	1.0	207.25	.001
Student abused	3.9	1.8	23.66	.001
Low grades in school	17.3	13.2	14.05	.001
Failed courses	14.2	8.7	35.66	.001
Overage in grade	23.2	15.9	38.23	.001
Retained in grade	23.1	13.9	67.14	.001
Excessive absences	9.2	6.8	8.78	.003
Low self-esteem	16.8	12.2	19.18	.001
Referred special education	11.6	9.7	3.92	
Low reading scores	13.2	9.2	18.16	.001
Parent sick last year	18.3	3.4	550.50	.001
Parent died last year	2.2	.8	19.33	.001
Parent lost job last year	9.3	3.7	76.90	.001
Friend died last year	100	0		
Student ill last year	19.2	2.4	864.61	.001
Sibling died last year	4.8	.3	352.11	.001
Father low-level job	16.0	16.9	.51	
Father not high school graduate	14.5	7.4	67.53	.001
Mother low-level job	23.3	19.4	9.18	.002
Mother not high school graduate	16.8	7.9	98.92	.001
Parents' attitude negative	5.2	5.0	.08	
Language not English	5.6	4.9	1.08	
Broken home	45.2	34.1	52.10	.001
Moved frequently	24.3	15.4	57.28	.001
Changed schools frequently	19.0	23.6	10.86	.001
Parents divorced last year	10.7	6.6	24.78	.001

FRIEND DIED VERSUS NO FRIEND DIED

- 18%* of students who had a friend who died last year were suspended from school; but 5% of students who did not have a friend who died were suspended;

- 5% of students who had a friend who died attempted suicide, but 1% of students who did not have a friend who died attempted suicide;

- 3% of students who had a friend who died were involved in a pregnancy, but 0.5% of those who did not have a friend die were involved in a pregnancy;

- 3% of students who had a friend die sold drugs, but less than 0.5% who did not have a friend die sold drugs;

- 12% of students who had a friend who died used drugs, but 3% of students who did not have a friend die used drugs;

- 13% of students who had a friend die lived in a family in which other family members used drugs, but 3% of students who did not have a friend die lived in a family in which members used drugs;

- 20% of students who had a friend die used alcohol, but 4% of students who did not have a friend who died used alcohol;

- 13% of students who had a friend die had a parent who drank excessively, but 3% of students who did not have a friend die had a parent who drank excessively;

- 6% of students who had a friend who died were arrested, but 1% of those who did not have a friend die were arrested;

- 4% of students who had a friend die were physically or sexually abused, but 2% of students who did not have a friend die were abused.

- In school, 17% of students who had a friend die had low grades in school, but 13% of students who did not have a friend die had low grades in school;

- 14% of students who had a friend die failed courses in school, but 9% of students who did not have a friend die failed courses;

- 23% of students who had a friend die were overage in grade, but 16% of students who did not have a friend die were overage in grade;

- 23% of students who had a friend die had been retained in grade, but 14% of students who did not have a friend die were retained in grade;

- 9% of students who had a friend die had excessive absences from school, but 7% of students who did not have a friend die had excessive absences;

- 17% of students who had a friend die had low self-esteem, but 12% of students who did not have a friend die had low self-esteem;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 12% of students who had a friend die were referred to special education, but 10% of students who did not have a friend die were referred to special education;

- 13% of students who had a friend die had low scores in reading, but 9% of students who did not have a friend die had low scores in reading.

- The records indicated that 18% of students who had a friend who died had a parent who was sick last year, but 3% of students who did not have a friend who died had a parent who was sick;

- 2% of students who had a friend die also had a parent die last year, but 1% of students who did not have a friend die had a parent who died last year;

- 9% of students who had a friend who died had a parent who lost a job last year, but 4% of students who did not have a friend who died had a parent who lost his or her job;

- 19% of students who had a friend who died were seriously ill or in an accident last year, but 2% of students who did not have a friend die were seriously ill or in an accident;

- 5% of students who had a friend die also had a sibling who died last year, but 0.3% who did not have a friend die had a sibling who died last year.

- Fathers of 16% of students who had a friend who died were unemployed or held a low-level job, but fathers of 17% of students who did not have a friend die were unemployed or held a low-level job;

- fathers of 15% of students who had a friend who died had not graduated from high school, but fathers of 7% of students who did not have a friend die did not graduate from high school;

- mothers of 23% of students who had a friend die were unemployed or held a low-level job, but mothers of 19% of the students who did not have a friend who died were unemployed or held a low-level job;

- mothers of 17% of students who had a friend die had not graduated from high school, but mothers of 8% of students who did not have a friend die had not graduated from high school;

- 5% of students who had a friend die had parents who held negative attitudes toward education, and 5% of students who did not have a friend die had parents who held negative attitudes toward education;

- 6% of students who had a friend die lived in a home in which English was not spoken, but 5% of students who had not had a friend die lived in a home in which English was not spoken.

- There were 45% of the students who had a friend die who did not live with their real mother and real father, but 34% of the students who did not have a friend die did not live with their real mother and real father;

- 24% of students who had a friend who died moved frequently, but 15% of students who did not have a friend die moved frequently;
- 19% of students who had a friend die changed schools frequently, but 24% of students who did not have a friend die changed schools frequently;
- the parents of 11% of students who had a friend die got divorced last year, but the parents of 7% of students who did not have a friend who died got divorced last year.

Table 32

Comparison of students who were seriously ill last year with those who were not seriously ill on various risk items

(N = 697 and 21,009)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	16.4	5.6	139.68	.001
Attempted suicide	6.9	.6	330.54	.001
Involved in pregnancy	3.2	.5	84.73	.001
Student sold drugs	3.4	.5	106.97	.001
Student used drugs	11.2	2.6	174.61	.001
Family used drugs	14.8	3.1	277.32	.001
Student used alcohol	16.4	4.2	225.40	.001
Parent alcoholic	14.3	3.3	238.38	.001
Student arrested	6.5	1.1	150.95	.001
Student abused	7.2	1.7	110.34	.001
Low grades in school	19.1	13.2	20.13	.001
Failed courses	14.9	8.8	31.42	.001
Overage in grade	23.4	16.0	27.37	.001
Retained in grade	24.4	13.9	60.11	.001
Excessive absences	18.1	6.5	140.20	.001
Low self-esteem	21.1	12.1	50.45	.001
Referred special education	14.2	9.7	15.77	.001
Low reading scores	12.6	9.3	8.90	.002
Parent sick last year	19.9	3.5	468.91	.001
Parent died last year	2.7	.9	26.21	.001
Parent lost job last year	13.6	3.7	173.63	.001
Friend died last year	27.5	3.8	864.61	.001
Student ill last year	100	0		
Sibling died last year	6.3	.4	443.30	.001
Father low-level job	19.8	16.8	4.45	
Father not high school graduate	14.9	7.5	52.01	.001
Mother low-level job	13.2	19.5	5.51	
Mother not high school graduate	16.5	8.1	62.85	.001
Parents' attitude negative	8.2	4.9	15.10	.001
Language not English	5.9	4.9	1.44	
Broken home	46.1	34.2	41.95	.001
Moved frequently	24.4	15.5	39.82	.001
Changed schools frequently	25.7	23.3	2.19	
Parents divorced last year	13.2	6.6	45.77	.001

STUDENT WAS ILL VERSUS NOT ILL

- 16%* of students who were seriously ill or in an accident last year had been suspended from school, but 6% of students who were not ill had been suspended from school;
- 7% of students who were seriously ill attempted suicide, but 1% of those who were not ill attempted suicide;
- 3% of students who were seriously ill or in an accident last year were involved in a pregnancy, but 0.5% of the students who were not ill were involved in a pregnancy;
- 3% of students who were ill sold drugs, but 0.5% of those who were not ill sold drugs;
- 11% of students who were ill used drugs, but 3% of those who were not ill used drugs;
- 15% of students who were seriously ill or involved in an accident lived in a family in which family members used drugs, but 3% of those who were not ill lived in such a family;
- 16% of students who were ill used alcohol, but 4% of students who were not ill used alcohol;
- 14% of students who were ill had an alcoholic parent, but 3% of students who were not ill had an alcoholic parent;
- 7% of students who were ill had been arrested, but 1% of students who were not ill had been arrested;
- 7% of students who were seriously ill or in an accident had been physically or sexually abused, but 2% of students who were not ill or in an accident had been abused.
- A total of 19% of students who had been seriously ill had low grades in school, but 13% of students who had not been ill had low grades in school;
- 15% of students who had been ill failed courses in school, but 9% of students who had not been ill failed courses in school;
- 23% of students who had been ill were overage in grade, but 16% of students who had not been ill were overage in grade;
- 24% of students who had been ill had been retained in grade, but 14% of students who had not been ill had been retained in grade;
- 18% of students who had been ill had excessive absences from school, but 7% of students who had not been ill had excessive absences from school;
- 21% of students who had been ill had low self-esteem, but 12% of students who had not been ill had low self-esteem;
- 14% of students who had been ill had been referred to special educa-

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** Note: Percentage numbers in the narrative analyses are rounded off.*

tion, but 10% of students who had not been ill had been referred to special education;

- 13% of students who had been ill had low reading scores, but 9% of students who had not been ill had low reading scores.
- Parents of 20% of students who had been ill were sick last year, but parents of 4% of students who had not been ill were sick last year;
- parents of 3% of students who had been ill died last year, but parents of 1% of students who had not been ill died last year;
- parents of 14% of students who had been ill lost their job last year, but parents of 4% of students who had not been ill lost their job last year;
- 28% of students who had been ill had a friend who died last year, but 4% of students who had not been ill had a friend who died last year;
- 6% of students who had been ill had a sibling who died last year, but 0.4% of students who had not been ill had a sibling who died last year.
- Fathers of 20% of students who had been seriously ill or in an accident last year were unemployed or worked at an unskilled laborer's job, but fathers of 17% of students who had not been ill were unemployed or worked at a low-level job;
- fathers of 15% of students who had been ill had not graduated from high school, but fathers of 8% of students who had not been ill had not graduated from high school;
- mothers of 13% of students who had been ill were unemployed or held a low-level job, but mothers of 20% of students who had not been ill were unemployed or held a low-level job;
- mothers of 17% of students who had been ill had not graduated from high school, but mothers of 8% of students who had not been ill had not graduated from high school;
- 8% of parents of students who had been ill held a negative attitude toward education, but 5% of parents of students who had not been ill held a negative attitude toward education;
- 6% of students who had been ill lived in a home in which English was not spoken, but 5% of students who had not been ill lived in a home in which English was not spoken.
- It became evident that 46% of students who had been ill lived in a broken home (not with the real mother and real father), but 34% of students who had not been ill lived in a broken home;
- 24% of students who had been ill moved frequently, but 16% of students who had not been ill moved frequently;
- 26% of the students who had been ill changed schools frequently, but 23% of students who had not been ill changed schools frequently;

- the parents of 13% of students who had been ill divorced last year, but parents of 7% of students who had not been ill divorced last year.

Table 33

Comparison of students who had sibling die in last year with those who did not on various risk items

(N = 118 and 21,706)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	9.3	5.9	2.42	
Attempted suicide	4.2	.8	17.32	.001
Involved in pregnancy	3.4	.6	16.59	.001
Student sold drugs	6.8	.5	82.07	.001
Student used drugs	11.0	2.9	27.57	.001
Family used drugs	28.8	3.3	229.08	.001
Student used alcohol	13.6	4.6	21.55	.001
Parent alcoholic	22.0	3.5	115.65	.001
Student arrested	2.5	1.3	1.46	
Student abused	8.5	1.8	28.19	.001
Low grades in school	12.7	13.4	.04	
Failed courses	12.7	8.9	2.05	
Overage in grade	24.7	16.1	30.04	.001
Retained in grade	36.4	14.2	47.59	.001
Excessive absences	12.7	6.9	6.24	.01
Low self-esteem	16.9	12.3	2.29	
Referred special education	16.9	9.8	6.85	.01
Low reading scores	11.9	9.4	.85	
Parent sick last year	23.7	3.9	118.44	.001
Parent died last year	9.3	.9	92.84	.001
Parent lost job last year	11.9	4.0	19.08	.001
Friend died last year	40.4	4.4	352.11	.001
Student ill last year	27.3	3.0	443.30	.001
Sibling died last year	100	0		
Father low-level job	21.2	16.8	1.59	
Father not high school graduate	14.4	7.7	7.39	.01
Mother low-level job	19.5	19.6	.00	
Mother not high school graduate	19.5	8.3	19.33	.001
Parents' attitude negative	10.2	5.0	6.61	.01
Language not English	12.7	4.9	15.43	.001
Broken home	47.5	34.5	8.70	.003
Moved frequently	26.3	15.8	9.75	.002
Changed schools frequently	21.2	23.4	.31	
Parents divorced last year	23.7	6.7	53.15	.001

SIBLING DIED VERSUS NO SIBLING DIED

- 9%* of students who had a sibling die last year were suspended from school, but 6% of students who did not have a sibling die were suspended from school;

- 4% of students who had a sibling die last year attempted suicide, but 1% of students who did not have a sibling die attempted suicide;

- 3% of students who had a sibling die were involved in a pregnancy, but less than 1% of those who did not have a sibling die were involved in a pregnancy;

- 7% of students who had a sibling die sold drugs, but 0.5% students who did not have a sibling die sold drugs;

- 11% of students who had a sibling die used drugs, but 3% of students who did not have a sibling die used drugs;

- 29% of students who had a sibling die lived in a family in which family members used drugs, but 3% of students who did not have a sibling die lived in a family which used drugs;

- 14% of students who had a sibling die used alcohol, but 5% of students who did not have a sibling die used alcohol;

- 22% of students who had a sibling die had a parent who drank excessively or was an alcoholic, but 4% of students who did not have a sibling die had an alcoholic parent;

- 3% of students who had a sibling die were arrested last year, but 1% of students who did not have a sibling die were arrested;

- 9% of students who had a sibling die were physically or sexually abused, but 2% of students who did not have a sibling die were abused.

- There were 13% of students who had a sibling die who had low grades in school, and 13% of students who did not have a sibling die had low grades in school;

- 13% of students who had a sibling die failed courses in school, but 9% of students who did not have a sibling die failed courses in school;

- 25% of students who had a sibling die were overage in grade, but 16% of students who did not have a sibling die were overage in grade;

- 36% of students who had a sibling die had been retained in grade, but 14% of students who did not have a sibling die were retained in grade;

- 13% of students who had a sibling die had excessive absences from school, but 7% of those who did not have a sibling die had excessive absences from school;

- 17% of students who had a sibling die had low self-esteem, but 12% of students who did not have a sibling die had low self-esteem;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 17% of students who had a sibling die were referred to special education, but 10% of students who did not have a sibling die were referred to special education;
- 12% of students who had a sibling die had low reading scores, but 9% of students who did not have a sibling die had low reading scores.
- Parents of 24% of students who had a sibling die were sick last year, but parents of 4% of students who did not have a sibling die were sick last year;
- 9% of students who had a sibling die last year also had a parent die last year, but 1% of students who did not have a sibling die had a parent die;
- 12% of students who had a sibling die had a parent who lost his or her job last year, but 4% of students who did not have a sibling die had a parent who lost a job last year;
- 40% of students who had a sibling die last year also had a friend who died last year, but 4% of students who did not have a sibling die had a friend who died;
- 27% of students who had a sibling die last year were seriously ill or in an accident last year, but 3% of students who did not have a sibling die last year were seriously ill or in an accident last year.
- Fathers of 21% of students who had a sibling die last year were unemployed or held a low-level job, but fathers of 17% of students who did not have a sibling die last year were unemployed or held a low-level job;
- fathers of 14% of students who had a sibling die last year had not graduated from high school, but fathers of 8% of students who did not have a sibling die had not graduated from high school;
- mothers of 20% of students who had a sibling who died were unemployed or held a low-level job, and mothers of 20% of students who did not have a sibling die were unemployed or held a low-level job;
- mothers of 20% of students who had a sibling die had not graduated from high school, but mothers of 8% of students who did not have a sibling die had not graduated from high school;
- 10% of students who had a sibling die last year had parents whose attitude toward education was negative, but 5% of students who did not have a sibling die had parents who had a negative attitude toward education;
- 13% of students who had a sibling die lived in a home in which English was not spoken, but 5% of students who did not have a sibling die lived in a home in which English was not spoken.
- In all, 48% of students who had a sibling die did not live with their real mother and real father, but 35% of students who did not have a sibling die did not live with their real mother and real father;

- 26% of students who had a sibling die moved frequently, but 16% of students who did not have a sibling die moved frequently;

- 21% of students who had a sibling die changed schools frequently, but 23% of students who did not have a sibling die changed schools frequently;

- the parents of 24% of students who had a sibling die were divorced last year, but the parents of 7% of students who did not have a sibling die were divorced last year.

SUMMARY

In this appendix we presented comparisons of students who were at risk on one item with students who were not at risk on that item on the other 33 items about which we collected information. These comparisons were accomplished on the six items that comprised the family tragedy factor:

- parent sick last year
- parent died last year
- parent lost job last year
- friend died last year
- student ill last year
- sibling died last year

There were 198 comparisons set forth here.

These comparisons are also described in tables 28 through 33, presented here and in volume 2 (appendix D and in charts 69 through 102 in appendix G).

It should be noted that 96% of the comparisons on the family tragedy factor items were in the same direction: students at risk on one item were also at risk on other items. Further, 75% of the comparisons were significant statistically (.001). The pattern suggests that students at risk on one item are about twice as likely to be at risk on other items as students who are not at risk on that first item.

APPENDIX E

RISK AND FAMILY SOCIOECONOMIC SITUATION COMPARISONS

The information about 21,706 students provided by teachers and counselors to researchers on the 45-item scale that had been developed from a review of 115 research studies was subjected to factor analysis. Five factors emerged:

- personal pain
- academic failure
- family tragedy
- family socioeconomic situation
- family instability

As a result of logical and empirical considerations, the 45-item scale was reduced to a 34-item scale. Eventually, some of the 34 items were combined to produce a 24-item scale, but the results presented here were based on multiple analyses of the 34-item scale.

The description that follows organizes the discussion around each of the items associated with one of the five factors cited above – family socioeconomic situation. Students were separated (evidence of risk versus no evidence of risk) on one of six items associated with the family socioeconomic situation factor, then compared on all of the other items on the scale.

FAMILY SOCIOECONOMIC SITUATION

The six items that comprised the family socioeconomic situation factor were:

- father's occupation
- father's level of education

- mother's occupation
- mother's level of education
- parent's attitude toward education
- language spoken in the home

Reading about these comparisons is slow and laborious, but the evidence is overwhelming: students at risk on one item were much more likely to be at risk on the other items than students who were not at risk on the first item. To extend the comparison, the narrative analysis below parallels the tabular descriptions, presented below and in volume 2 (appendix D, tables 34 through 39, and in appendix G, charts 103 through 136).

Table 34

Comparison of students whose father had low-level job with those whose father did not have low-level job on various risk items

(N = 3,659 and 18,047)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	8.2	5.5	40.07	.001
Attempted suicide	.7	.8	1.31	
Involved in pregnancy	.6	.6	.00	
Student sold drugs	.7	.5	2.43	
Student used drugs	3.6	2.8	8.14	.004
Family used drugs	5.6	3.0	59.63	.001
Student used alcohol	4.8	4.6	.19	
Parent alcoholic	6.3	3.1	92.24	.001
Student arrested	1.9	1.2	11.17	.001
Student abused	3.4	1.6	55.28	.001
Low grades in school	20.3	12.0	183.08	.001
Failed courses	12.2	8.3	56.42	.001
Overage in grade	23.9	14.7	189.99	.001
Retained in grade	22.0	12.7	215.70	.001
Excessive absences	9.8	6.3	59.32	.001
Low self-esteem	16.8	11.5	78.79	.001
Referred special education	12.8	9.2	43.59	.001
Low reading scores	15.3	8.2	178.05	.001
Parent sick last year	5.3	3.8	17.92	.001
Parent died last year	.8	.9	.69	
Parent lost job last year	8.5	3.1	234.30	.001
Friend died last year	4.4	4.6	.50	
Student ill last year	3.8	3.1	4.45	
Sibling died last year	.7	.5	1.59	
Father low-level job	100	0		
Father not high school graduate	24.0	4.4	1628.59	.001
Mother low-level job	45.0	14.5	1794.15	.001
Mother not high school graduate	20.4	5.9	844.62	.001
Parents' attitude negative	9.1	4.2	154.02	.001
Language not English	9.6	4.0	208.38	.001
Broken home	35.4	34.4	1.48	
Moved frequently	19.8	15.0	52.25	.001
Changed schools frequently	27.5	22.5	43.38	.001
Parents divorced last year	7.8	6.6	6.63	.01

FATHER HELD LOW-LEVEL JOB VERSUS NOT LOW-LEVEL JOB

- 8%* of students whose father was unemployed or held an unskilled laborer's job were suspended from school, but 6% of students whose father held a higher level job were suspended from school;

- 1% of students whose father was unemployed or held an unskilled laborer's job attempted suicide, and 1% of students whose father held a higher level job attempted suicide;

- 1% of students whose father was unemployed or held a low-level job were involved in a pregnancy, and 1% of students whose father held a higher level job were involved in a pregnancy;

- 0.7% of students whose father was unemployed or held a low-level job sold drugs, and 0.5% of students whose father held a higher level job sold drugs;

- 4% of students whose father held a low-level job used drugs, but 3% of students whose father held a higher level job used drugs;

- 6% of students whose father was unemployed or held a low-level job lived in a family in which family members used drugs, but 3% of students whose father held a higher level job lived with family members who used drugs;

- 5% of students whose father was unemployed or held a low-level job used alcohol, and 5% of students whose father held a higher level job used alcohol;

- 6% of students whose father was unemployed or held a low-level job had a parent who was alcoholic, but 3% of students whose father held a higher level job had a parent who was alcoholic;

- 2% of students whose father was unemployed or held a low-level job were arrested, but 1% of students whose father held a higher level job were arrested;

- 3% of students whose father was unemployed or held a low-level job were physically or sexually abused, but 2% of students whose father held a higher level job were abused.

- More than 20% of students whose father was unemployed or held a low-level job had low grades in school, but 12% of students whose father held a higher level job had low grades in school;

- 12% of students whose father was unemployed or held a low-level job failed courses in school, but 8% of students whose father held a higher level job failed courses;

- 24% of students whose father was unemployed or held a low-level job were overage in grade, but 15% of students whose father held a higher level job were overage in grade;

- 22% of students whose father was unemployed or held a low-level job had been retained in grade, but 13% of students whose father held a higher level job had been retained in grade;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 10% of students whose father was unemployed or held a low-level job had excessive absences from school, but 6% of students whose father held a higher level job had excessive absences from school;
- 17% of students whose father was unemployed or held a low-level job had low self-esteem, but 12% of students whose father held a higher level job had low self-esteem;
- 13% of students whose father was unemployed or held a low-level job had been referred to special education, but 9% of students whose father held a higher level job had been referred to special education;
- 15% of students whose father was unemployed or held a low-level job had low reading scores, but 8% of students whose father held a higher level job had low reading scores.
- Parents of 5% of students whose father was unemployed or held a low-level job were sick last year, but parents of 4% of students whose father held a higher level job were sick last year;
- 1% of students whose father was unemployed or held a low-level job had a parent who died last year, and 1% of students whose father held a higher level job had a parent who died last year;
- 9% of students whose father was unemployed or held a low-level job had a parent who lost his or her job last year, but 3% of students whose father held a higher level job had a parent who lost his or her job last year;
- 4% of students whose father was unemployed or held a low-level job had a friend who died last year, and 5% of students whose father held a higher level job had a friend who died last year;
- 4% of students whose father was unemployed or held a low-level job were seriously ill or in an accident last year, but 3% of students whose father held a higher level job were seriously ill or in an accident;
- 0.7% of students whose father was unemployed or held a low-level job had a sibling who died last year, and 0.5% of students whose father held a higher level job had a sibling who died last year.
- Fathers of 24% of students whose father was unemployed or held a low-level job had not graduated from high school, but fathers of 4% of students whose father held a higher level job had not graduated from high school;
- mothers of 45% of students whose father was unemployed or held a low-level job were unemployed or worked as an unskilled laborer, but mothers of 15% of students whose father worked at a higher level job were unemployed or worked as an unskilled laborer;

- mothers of 20% of students whose father was unemployed or held a low-level job had not graduated from high school, but mothers of 6% of students whose father held a higher level job had not graduated from high school;

- 9% of students whose father was unemployed or held a low-level job had negative attitudes toward education, but 4% of students whose father held a higher level job had negative attitudes toward education;

- 10% of students whose father was unemployed or held a low-level job lived in a home in which English was not spoken, but 4% of students whose father held a higher level job lived in a home in which English was not spoken.

- There were 35% of students whose father was unemployed or who held a low-level job who did not live with the real mother and real father, but 34% of students whose father held a higher level job did not live with real mother and real father;

- 20% of students whose father was unemployed or held a low-level job moved frequently, but 15% of students whose father held a higher level job moved frequently;

- 28% of students whose father was unemployed or held a low-level job changed schools frequently, but 23% of students whose father held a higher level job changed schools frequently;

- 8% of students whose father was unemployed or held a low-level job had parents who got a divorce last year, but 7% of students whose father held a higher level job had parents who got a divorce last year.

Table 35

Comparison of students whose father did not graduate from high school with students whose father did graduate on various risk items

(N = 1,680 and 20,026)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	13.9	5.3	207.73	.001
Attempted suicide	1.2	.8	3.26	
Involved in pregnancy	1.6	.5	34.40	.001
Student sold drugs	1.2	.5	12.87	.001
Student used drugs	6.3	2.6	74.37	.001
Family used drugs	9.6	2.9	205.56	.001
Student used alcohol	10.1	4.2	122.53	.001
Parent alcoholic	9.1	3.2	157.95	.001
Student arrested	3.5	1.1	66.87	.001
Student abused	4.6	1.6	73.01	.001
Low grades in school	23.7	12.5	166.68	.001
Failed courses	17.4	8.2	160.76	.001
Overage in grade	30.1	15.0	259.72	.001
Retained in grade	30.9	12.9	410.43	.001
Excessive absences	12.6	6.4	92.86	.001
Low self-esteem	21.5	11.6	141.31	.001
Referred special education	13.7	9.5	31.11	.001
Low reading scores	16.8	8.8	119.19	.001
Parent sick last year	8.0	3.7	72.51	.001
Parent died last year	1.0	.9	.03	
Parent lost job last year	12.0	3.3	300.27	.001
Friend died last year	8.6	4.3	67.53	.001
Student ill last year	6.2	3.0	52.01	.001
Sibling died last year	1.0	.5	7.39	.01
Father low-level job	52.3	13.9	1628.59	.001
Father not high school graduate	100	0		
Mother low-level job	38.0	18.1	391.24	.001
Mother not high school graduate	58.6	4.1	6015.63	.001
Parents' attitude negative	12.9	4.4	238.46	.001
Language not English	15.4	4.0	429.60	.001
Broken home	36.3	34.4	2.6	
Moved frequently	22.1	15.3	54.84	.001
Changed schools frequently	25.8	23.1	5.99	.01
Parents divorced last year	9.5	6.6	19.74	.001

FATHER NOT HIGH SCHOOL GRADUATE VERSUS FATHER DID GRADUATE

- 14%* of students whose father had not graduated from high school were suspended from school, but 5% of students whose father had graduated from high school were suspended from school;

- 1% of students whose father had not graduated from high school had attempted suicide, and 1% of students whose father had graduated from high school had attempted suicide;

- 2% of students whose father had not graduated from high school were involved in a pregnancy, but 1% of students whose father had graduated from high school were involved in a pregnancy;

- 1% of students whose father had not graduated from high school sold drugs, but 0.5% of students whose father had graduated from high school sold drugs;

- 6% of students whose father had not graduated from high school used drugs, but 3% of students whose father had graduated from high school used drugs;

- 10% of students whose father had not graduated from high school lived in a family in which other members used drugs, but 3% of students whose father had graduated from high school lived in a family in which other members used drugs;

- 10% of students whose father had not graduated from high school used alcohol, but 4% of students whose father had graduated from high school used alcohol;

- 9% of students whose father had not graduated from high school had an alcoholic parent, but 3% of students whose father had graduated from high school had an alcoholic parent;

- 4% of students whose father had not graduated from high school had been arrested, but 1% of students whose father had graduated from high school had been arrested;

- 5% of students whose father had not graduated from high school had been physically or sexually abused, but 2% of students whose father had graduated from high school had been abused.

- Almost 24% of students whose father had not graduated from high school had low grades in school, but 13% of students whose father had graduated from high school had low grades in school;

- 17% of students whose father had not graduated from high school failed courses in school, but 8% of students whose father had graduated from high school failed courses in school;

- 30% of students whose father had not graduated from high school were overage in grade, but 15% of students whose father had graduated from high school were overage in grade;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 31% of students whose father had not graduated from high school had been retained in grade, but 13% of students whose father had graduated from high school had been retained in grade;

- 13% of students whose father had not graduated from high school had excessive absences from school, but 6% of students whose father had graduated from high school had excessive absences from school;

- 22% of students whose father had not graduated from high school had low self-esteem, but 12% of students whose father had graduated from high school had low self-esteem;

- 14% of students whose father had not graduated from high school were referred to special education, but 10% of students whose father had graduated from high school were referred to special education;

- 17% of students whose father had not graduated from high school had low reading scores, but 9% of students whose father had graduated from high school had low reading scores.

- A parent of 8% of students whose father had not graduated from high school was sick last year, but a parent of 4% of students whose father had graduated from high school was sick last year;

- 1% of students whose father had not graduated from high school had a parent die last year, and 1% of students whose father had graduated from high school had a parent die last year;

- 12% of students whose father had not graduated from high school had a parent who lost his or her job last year, but 3% of students whose father had graduated from high school had a parent who lost a job last year;

- 9% of students whose father had not graduated from high school had a friend die last year, but 4% of students whose father had graduated from high school had a friend die last year;

- 6% of students whose father had not graduated from high school were seriously ill or in an accident last year, but 3% of students whose father graduated from high school were seriously ill or in an accident last year;

- 1% of students whose father had not graduated from high school had a sibling who died last year, and 0.5% of students whose father graduated from high school had a sibling who died last year.

- More than 52% of students whose father had not graduated from high school had a father who was unemployed or worked in an unskilled laborer's job, but 14% of students whose father had graduated from high school had a father who was unemployed or worked in an unskilled laborer's job;

- 38% of students whose father had not graduated from high school had a mother who was unemployed or worked in a low-level job, but 18% of students whose father had graduated from high school had a mother who was unemployed or worked in a low-level job;

- 59% of students whose father had not graduated from high school had a mother who had not graduated from high school, but 4% of students whose father had graduated from high school had a mother who had not graduated from high school;
- parents of 13% of students whose father had not graduated from high school had negative attitudes toward education, but parents of 4% of students whose father had graduated from high school had negative attitudes toward education;
- 15% of students whose father had not graduated from high school lived in a home in which English was not spoken, but 4% of students whose father had graduated from high school lived in a home in which English was not spoken.
- There were 36% of students whose father had not graduated from high school who did not live with their real father and real mother, but 34% of students whose father had graduated from high school did not live with the real father and real mother;
- 22% of students whose father had not graduated from high school moved frequently, but 15% of students whose father had graduated from high school moved frequently;
- 26% of students whose father had not graduated from high school changed schools frequently, but 23% of students whose father had graduated from high school changed schools frequently;
- parents of 10% of students whose father had not graduated from high school divorced last year, but parents of 7% of students whose father had graduated from high school divorced last year.

Table 36

Comparison of students whose mother had low-level job with students whose mother did not have low-level job on various risk items

(N = 4,260 and 17,446)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	8.4	5.4	55.24	.001
Attempted suicide	.7	.8	1.55	
Involved in pregnancy	.9	.5	9.60	.002
Student sold drugs	.8	.5	5.28	
Student used drugs	3.6	2.7	9.28	.002
Family used drugs	5.5	2.9	67.89	.001
Student used alcohol	4.7	4.6	.07	
Parent alcoholic	6.0	3.0	89.23	.001
Student arrested	1.8	1.2	11.15	.001
Student abused	3.4	1.5	65.83	.001
Low grades in school	18.9	12.0	139.89	.001
Failed courses	11.7	8.3	48.59	.001
Overage in grade	22.5	14.7	156.53	.001
Retained in grade	21.1	12.6	200.08	.001
Excessive absences	10.1	6.1	85.62	.001
Low self-esteem	18.2	11.0	164.13	.001
Referred special education	12.7	9.1	50.26	.001
Low reading scores	13.6	8.3	112.79	.001
Parent sick last year	4.6	3.9	3.87	
Parent died last year	1.1	.9	1.65	
Parent lost job last year	7.2	3.2	141.49	.001
Friend died last year	5.5	4.4	9.18	.002
Student ill last year	3.8	3.1	5.51	
Sibling died last year	.5	.5	.00	
Father low-level job	38.6	11.5	1794.15	.001
Father not high school graduate	15.0	6.0	391.24	.001
Mother low-level job	100	0		
Mother not high school graduate	18.6	5.8	733.32	.001
Parents' attitude negative	8.7	4.1	153.53	.001
Language not English	7.3	4.3	64.49	.001
Broken home	47.6	31.4	396.37	.001
Moved frequently	21.2	14.5	114.50	.001
Changed schools frequently	27.4	22.4	48.48	.001
Parents divorced last year	8.3	6.5	16.92	.001

MOTHER HAD LOW-LEVEL JOB VERSUS NOT LOW-LEVEL JOB

- 8%* of students whose mother was unemployed or held a low-level job were suspended from school, but 5% of students whose mother held higher level job were suspended from school;

- 1% of students whose mother was unemployed or held a low-level job had attempted suicide, and 1% of students whose mother held a higher level job had attempted suicide;

- 1% of students whose mother was unemployed or held a low-level job were involved in a pregnancy, but 0.5% of students whose mother held a higher level job were involved in a pregnancy;

- just under 1% of students whose mother had a low-level job or were unemployed sold drugs, but 0.5% of students whose mother held a higher level job sold drugs;

- 4% of students whose mother was unemployed or held a low-level job used drugs, but 3% of students whose mother held a higher level job used drugs;

- 6% of students whose mother was unemployed or held a low-level job lived in a family in which members used drugs, but 3% of students whose mother held a higher level job lived in a family in which family members used drugs;

- 5% of students whose mother was unemployed or held low-level job used alcohol, and 5% of students whose mother held a higher level job used alcohol;

- 6% of students whose mother was unemployed or held a low-level job had an alcoholic parent, but 3% of students whose mother held a higher level job had an alcoholic parent;

- 2% of students whose mother was unemployed or held a low-level job had been arrested, but 1% of students whose mother held a higher level job had been arrested;

- 3% of students whose mother was unemployed or held a low-level job had been physically or sexually abused, but 2% of students whose mother held a higher level job had been abused.

- In school, 19% of students whose mother was unemployed or held a low-level job had low grades in school, but 12% of students whose mother had a higher level job had low grades in school;

- 12% of students whose mother was unemployed or held a low-level job failed courses in school, but 8% of students whose mother held a higher level job failed courses in school;

- 23% of students whose mother was unemployed or held low-level job were overage in grade, but 15% of students whose mother held a higher level job were overage in grade;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 21% of students whose mother was unemployed or held a low-level job had been retained in grade, but 13% of students whose mother held a higher level job had been retained in grade;

- 10% of students whose mother was unemployed or held a low-level job had excessive absences from school, but 6% of students whose mother held a higher level job had excessive absences from school;

- 18% of students whose mother was unemployed or held a low-level job had low self-esteem, but 11% of students whose mother held a higher level job had low self-esteem;

- 13% of students whose mother was unemployed or held a low-level job had been referred to special education, but 9% of students whose mother held a higher level job had been referred to special education;

- 14% of students whose mother was unemployed or held a low-level job had low reading scores, but 8% of students whose mother held a higher level job had low reading scores.

- There were 5% of students whose mother was unemployed or held a low-level job who had a parent sick last year, but 4% of students whose mother held a higher-level job had a parent who was sick;

- 1% of students whose mother was unemployed or held a low-level job had a parent die last year, and 1% of students whose mother held a higher level job had a parent die last year;

- 7% of students whose mother was unemployed or held a low-level job had a parent who lost his or her job last year, but 3% of students whose mother held a higher level job had a parent who lost his or her job last year;

- 6% of students whose mother was unemployed or held a low-level job had a friend who died last year, but 4% of students whose mother held a higher level job had a friend who died last year;

- 4% of students whose mother was unemployed or held a low-level job were seriously ill or in an accident last year, but 3% of students whose mother held a higher level job were seriously ill or in an accident last year;

- 0.5% of students whose mother was unemployed or held a low-level job had a sibling who died last year, and 0.5% of students whose mother held a higher level job had a sibling who died last year.

- Fathers of 39% of students whose mothers were unemployed or held a low-level job were unemployed or held low-level jobs themselves last year, but 12% of students whose mothers held higher level jobs had fathers who were unemployed or who held low level jobs last year;

- 15% of students whose mothers were unemployed or held low-level jobs had fathers who had not graduated from high school, but 6% of students whose mothers held higher level jobs had fathers who had not graduated from high school;

- 19% of students whose mothers were unemployed or held a low-level job had mothers who had not graduated from high school, but 6% of students whose mothers held higher level jobs had mothers who had not graduated from high school;

- 9% of students whose mothers were unemployed or held low-level jobs had parents whose attitudes toward education were negative, but 4% of students whose mothers held higher level jobs had parents whose attitudes toward education were negative;

- 7% of students whose mothers were unemployed or held low-level jobs lived in a home in which English was not spoken, but 4% of students whose mothers held higher level jobs lived in a home in which English was not spoken.

- In terms of the home, 48% of students whose mother was unemployed or held a low-level job did not live with real mother and real father, but 31% of students whose mother held a higher level job did not live with real mother and real father;

- 21% of students whose mother was unemployed or held low-level job moved frequently, but 15% of students whose mother held higher level job moved frequently;

- 27% of students whose mother was unemployed or held a low-level job changed schools frequently, but 22% of students whose mother held a higher level job changed schools frequently;

- parents of 8% of students whose mother was unemployed or held a low-level job got divorced last year, but parents of 7% of students whose mother held a higher level job got divorced last year.

Table 37

Comparison of students whose mother did not graduate from high school with students whose mother did graduate on various risk items

(N = 1,809 and 19,897)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	14.2	5.2	241.09	.001
Attempted suicide	1.8	.7	22.52	.001
Involved in pregnancy	1.7	.5	45.34	.001
Student sold drugs	1.6	.5	38.27	.001
Student used drugs	6.6	2.6	93.85	.001
Family used drugs	9.8	2.9	237.63	.001
Student used alcohol	9.7	4.2	114.65	.001
Parent alcoholic	9.7	3.1	208.30	.001
Student arrested	3.4	1.1	70.80	.001
Student abused	4.6	1.6	82.68	.001
Low grades in school	25.4	12.3	244.47	.001
Failed courses	19.6	8.0	272.60	.001
Overage in grade	31.0	14.9	316.37	.001
Retained in grade	30.6	12.8	427.65	.001
Excessive absences	14.2	6.2	164.23	.001
Low self-esteem	22.4	11.5	182.50	.001
Referred special education	13.4	9.5	28.54	.001
Low reading scores	16.7	8.7	125.88	.001
Parent sick last year	7.7	3.7	69.39	.001
Parent died last year	1.5	.9	7.35	.01
Parent lost job last year	11.3	3.3	275.80	.001
Friend died last year	9.3	4.2	98.92	.001
Student ill last year	6.4	2.9	62.85	.001
Sibling died last year	1.3	.5	19.33	.001
Father low-level job	41.3	14.6	844.62	.001
Father not high school graduate	54.4	3.5	6015.63	.001
Mother low-level job	43.8	17.4	733.32	.001
Mother not high school graduate	100	0		
Parents' attitude negative	13.2	4.3	278.10	.001
Language not English	16.1	3.9	526.85	.001
Broken home	46.0	33.5	114.81	.001
Moved frequently	23.8	15.1	95.22	.001
Changed schools frequently	25.3	23.2	4.28	
Parents divorced last year	9.7	6.6	25.92	.001

MOTHER NOT HIGH SCHOOL GRADUATE VERSUS MOTHER DID GRADUATE

- 14%* of students whose mother had not graduated from high school had been suspended from school, but 5% of students whose mother had graduated from high school had been suspended from school;

- 2% of students whose mother had not graduated from high school had attempted suicide, but 1% of students whose mother had graduated from high school had attempted suicide;

- 2% of students whose mother had not graduated from high school were involved in a pregnancy, but 1% of students whose mother had graduated from high school were involved in a pregnancy;

- 2% of students whose mother had not graduated from high school sold drugs, but 1% of students whose mother had graduated from high school sold drugs;

- 7% of students whose mother had not graduated from high school used drugs, but 3% of students whose mother had graduated from high school used drugs;

- 10% of students whose mother had not graduated from high school lived in a family which used drugs, but 3% of students whose mother had graduated from high school lived in a family which used drugs;

- 10% of students whose mother had not graduated from high school used alcohol, but 4% of students whose mother had graduated from high school used drugs;

- 10% of students whose mother had not graduated from high school had an alcoholic parent, but 3% of students whose mother had graduated from high school had an alcoholic parent;

- 3% of students whose mother had not graduated from high school had been arrested, but 1% of students whose mother had graduated from high school had been arrested;

- 5% of students whose mother had not graduated from high school had been physically or sexually abused, but 2% of students whose mother had graduated from high school had been physically or sexually abused.

- One quarter (25%) of students whose mother had not graduated from high school had low grades in school, but 12% of students whose mother had graduated from high school had low grades in school;

- 20% of students whose mother had not graduated from high school failed courses in school, but 8% of students whose mother had graduated from high school failed courses in school;

- 31% of students whose mother had not graduated from high school were overage in grade, but 15% of students whose mother had graduated from high school were overage in grade;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 31% of students whose mother had not graduated from high school had been retained in grade, but 13% of students whose mother had graduated from high school had been retained in grade;
- 14% of students whose mother had not graduated from high school had excessive absences from school, but 6% of students whose mother had graduated from high school had excessive absences from school;
- 22% of students whose mother had not graduated from high school had low self-esteem, but 12% of students whose mother had graduated from high school had low self-esteem;
- 13% of students whose mother had not graduated from high school had been referred to special education, but 10% of students whose mother had graduated from high school had been referred to special education;
- 17% of students whose mother had not graduated from high school had low reading scores, but 9% of students whose mother had graduated from high school had low reading scores.
- In all, 8% of students whose mother had not graduated from high school had a parent who was sick last year, but 4% of students whose mother had graduated from high school had a parent who was sick last year;
- 2% of students whose mother had not graduated from high school had a parent who died last year, but 1% of students whose mother had graduated from high school had a parent who died;
- 11% of students whose mother had not graduated from high school had a parent who lost his or her job last year, but 3% of students whose mother had graduated from high school had a parent who lost a job last year;
- 9% of the students whose mother had not graduated from high school had a friend who died last year, but 4% of students whose mother graduated from high school had a friend who died last year;
- 6% of students whose mother had not graduated from high school were seriously ill or in an accident last year, but 3% of the students whose mother graduated from high school were seriously ill or in an accident last year;
- 1% of students whose mother had not graduated from high school had a sibling who died last year, but 0.5% of students whose mother graduated from high school had a sibling who died.
- Fathers of 41% of students whose mother had not graduated from high school were unemployed or held a low-level job, but fathers of 15% of students whose mother had graduated from high school were unemployed or held a low-level job;

- 54% of the students whose mother had not graduated from high school had fathers who had not graduated from high school, but 4% of students whose mother had graduated from high school had fathers who had not graduated from high school;

- 44% of students whose mother had not graduated from high school had mothers who were unemployed or in a low-level job, but 17% of students whose mother had graduated from high school had mothers who were unemployed or in a low-level job;

- 13% of students whose mother had not graduated from high school had parents whose attitude toward education was negative, but 4% of students whose mother had graduated from high school had parents whose attitude toward education was negative;

- 16% of students whose mother had not graduated from high school lived in a home in which English was not spoken, but 4% of students whose mother had graduated from high school lived in a home in which English was not spoken.

- Regarding their family situation, 46% of students whose mother had not graduated from high school did not live with their real mother and real father, but 34% of students whose mother had graduated from high school did not live with their real mother and real father;

- 24% of students whose mother had not graduated from high school moved frequently, but 15% of students whose mother had graduated from high school moved frequently;

- 25% of students whose mother had not graduated from high school changed schools frequently, but 23% of students whose mother had graduated high school changed schools frequently;

- the parents of 10% of students whose mother had not graduated from high school were divorced last year, but the parents of 7% of students whose mother had graduated from high school were divorced last year.

Table 38

Comparison of students whose parents had negative attitude with those whose parents did not on various risk items

(N = 1,089 and 20,617)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	16.6	5.4	233.85	.001
Attempted suicide	1.4	.8	4.58	
Involved in pregnancy	1.6	.5	19.78	.001
Student sold drugs	2.2	.5	55.30	.001
Student used drugs	11.2	2.5	278.82	.001
Family used drugs	11.5	3.0	221.78	.001
Student used alcohol	12.0	4.2	143.10	.001
Parent alcoholic	12.3	3.2	248.86	.001
Student arrested	5.1	1.1	127.33	.001
Student abused	8.5	1.5	277.86	.001
Low grades in school	38.7	12.1	631.46	.001
Failed courses	25.5	8.1	386.16	.001
Overage in grade	31.2	15.4	190.46	.001
Retained in grade	32.7	13.3	317.38	.001
Excessive absences	19.1	6.3	265.91	.001
Low self-esteem	53.4	10.2	1783.43	.001
Referred special education	17.3	9.4	72.15	.001
Low reading scores	22.6	8.7	235.10	.001
Parent sick last year	5.6	4.0	7.16	.01
Parent died last year	1.6	.9	5.34	
Parent lost job last year	8.7	3.8	66.46	.001
Friend died last year	4.8	4.6	.08	
Student ill last year	5.2	3.1	15.10	.001
Sibling died last year	1.1	.5	6.61	.01
Father low-level job	30.6	16.1	154.02	.001
Father not high school graduate	19.9	7.1	238.46	.001
Mother low-level job	34.2	18.9	153.53	.001
Mother not high school graduate	21.9	7.6	278.10	.001
Parents' attitude negative	100	0		
Language not English	7.8	4.8	20.48	.001
Broken home	51.5	33.7	145.44	.001
Moved frequently	24.1	15.4	58.59	.001
Changed schools frequently	30.9	23.0	36.09	.001
Parents divorced last year	11.7	6.6	41.91	.001

PARENT'S ATTITUDE NEGATIVE VERSUS ATTITUDE NOT NEGATIVE

- 17%* of students whose parents had a negative attitude about education were suspended from school, but 5% of students whose parents did not have a negative attitude were suspended from school;

- 1% of students whose parents had a negative attitude about education attempted suicide, and 1% of students whose parents did not have a negative attitude attempted suicide;

- 2% of students whose parents had a negative attitude about education were involved in a pregnancy, but 1% of students whose parents did not have a negative attitude were involved in a pregnancy;

- 2% of students whose parents had a negative attitude about education sold drugs, but 0.5% of students whose parents did not have a negative attitude sold drugs;

- 11% of students whose parents had a negative attitude about education used drugs, but 3% of students whose parents did not have a negative attitude used drugs;

- 12% of students whose parents had a negative attitude about education lived in a family in which members used drugs, but 3% of students whose parents did not have a negative attitude lived in a family in which members used drugs;

- 12% of students whose parents had a negative attitude about education used alcohol, but 4% of students whose parents did not have a negative attitude used alcohol;

- 12% of students whose parents had a negative attitude about education had an alcoholic parent, but 3% of students whose parents did not have a negative attitude had an alcoholic parent.

- 5% of students whose parents had a negative attitude about education had been arrested, but 1% of students whose parents did not have a negative attitude about education had been arrested;

- 9% of students whose parents had a negative attitude about education had been physically or sexually abused, but 2% of students whose parents did not have a negative attitude had been abused.

- There were 39% of students whose parents had a negative attitude about education who got low grades in school, but 12% of students whose parents did not have a negative attitude got low grades in school;

- 26% of students whose parents had a negative attitude about education failed courses in school, but 8% of students whose parents did not have a negative attitude failed courses in school;

- 31% of students whose parents had a negative attitude about education

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** Note: Percentage numbers in the narrative analyses are rounded off.*

were overage in grade, but 15% of students whose parents did not have negative attitudes were overage in grade;

- 33% of students whose parents had a negative attitude about education had been retained in grade, but 13% of students whose parents did not have negative attitudes had been retained in grade;
- 19% of students whose parents had a negative attitude about education had excessive absences from school, but 6% of students whose parents did not have a negative attitude had excessive absences from school;
- 53% of students whose parents had a negative attitude about education had low self-esteem, but 10% of students whose parents did not have a negative attitude had low self-esteem;
- 17% of students whose parents had a negative attitude about education had been referred to special education, but 9% of students whose parents did not have a negative attitude had been referred to special education;
- 23% of students whose parents had a negative attitude about education had low reading scores, but 9% of students whose parents did not have a negative attitude had low reading scores.
- Parents of 6% of students whose parents had a negative attitude about education were sick last year, but parents of 4% of students whose parents did not have a negative attitude were sick last year;
- 2% of students whose parents had a negative attitude about education had a parent die last year, but 1% of students whose parents did not have a negative attitude had a parent die last year;
- 9% of students whose parents had a negative attitude about education had a parent who lost his or her job last year, but 4% of students whose parents did not have a negative attitude had a parent who lost a job last year;
- 5% of students whose parents had a negative attitude about education had a friend die last year, and 5% of students whose parents did not have a negative attitude had a friend die last year;
- 5% of students whose parents had a negative attitude about education were seriously ill or in an accident last year, but 3% of students whose parents did not have a negative attitude were seriously ill or in an accident;
- 1% of students whose parents had a negative attitude about education had a sibling die last year, but 0.5% of students whose parents did not have a negative attitude had a sibling die last year.
- Fathers of 31% of students whose parents had a negative attitude about education were unemployed or held a low-level job, but fathers of 16% of students whose parents did not have a negative attitude were unemployed or held a low-level job;

- fathers of 20% of students whose parents had a negative attitude about education had not graduated from high school, but fathers of 7% of students whose parents did not have a negative attitude had not graduated from high school;

- mothers of 34% of students whose parents had a negative attitude about education were unemployed or held a low-level job, but mothers of 19% of students whose parents did not have a negative attitude were unemployed or held a low-level job;

- mothers of 22% of students whose parents had a negative attitude about education had not graduated from high school, but mothers of 8% of students whose parents did not have a negative attitude had not graduated from high school;

- 8% of students whose parents had a negative attitude about education lived in a home in which English was not spoken, but 5% of students whose parents did not have a negative attitude lived in a home in which English was not spoken.

- More than half (52%) of students whose parents had a negative attitude about education did not live with real mother and real father, but 34% of students whose parents did not have a negative attitude did not live with real mother and real father;

- 24% of students whose parents had a negative attitude about education moved frequently, but 15% of students whose parents did not have a negative attitude moved frequently;

- 31% of students whose parents had a negative attitude about education changed schools frequently, but 23% of students whose parents did not have a negative attitude about education changed schools frequently;

- parents of 12% of students whose parents had a negative attitude about education got divorced last year, but parents of 7% of students whose parents had a negative attitude got divorced last year.

Table 39

Comparison of students from homes in which English was not language spoken with students from homes in which it was on various risk items

(N = 1,067 and 20,639)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	9.0	5.8	18.73	.001
Attempted suicide	1.2	.8	2.31	
Involved in pregnancy	.9	.6	2.65	
Student sold drugs	1.2	.5	8.65	.003
Student used drugs	4.4	2.8	8.85	.003
Family used drugs	4.5	3.4	3.70	
Student used alcohol	3.9	4.7	1.18	
Parent alcoholic	4.8	3.6	4.40	
Student arrested	2.9	1.2	23.00	.001
Student abused	2.2	1.9	.88	
Low grades in school	19.5	13.1	36.08	.001
Failed courses	17.0	8.5	89.24	.001
Overage in grade	26.5	15.7	88.02	.001
Retained in grade	20.1	14.0	30.56	.001
Excessive absences	10.3	6.7	20.35	.001
Low self-esteem	15.6	12.2	10.49	.001
Referred special education	10.0	9.8	.06	
Low reading scores	17.0	9.0	75.80	.001
Parent sick last year	5.1	4.0	2.98	
Parent died last year	1.2	.9	1.16	
Parent lost job last year	7.3	3.8	31.93	.001
Friend died last year	5.2	4.6	1.08	
Student ill last year	3.8	3.2	1.44	
Sibling died last year	1.4	.5	15.43	.001
Father low-level job	33.0	16.0	208.38	.001
Father not high school graduate	24.3	6.9	429.60	.001
Mother low-level job	29.1	19.1	64.49	.001
Mother not high school graduate	27.3	7.4	526.85	.001
Parents' attitude negative	8.0	4.9	20.48	.001
Language not English	100	0		
Broken home	29.9	34.8	10.86	.001
Moved frequently	26.5	15.3	96.73	.001
Changed schools frequently	30.8	23.0	35.14	.001
Parents divorced last year	6.6	6.9	.13	

ENGLISH NOT SPOKEN IN HOME VERSUS ENGLISH SPOKEN

- 9%* of students who lived in a home in which English was not spoken had been suspended from school, but 6% of students who lived in a home in which English was spoken had been suspended from school;
- 1% of students who lived in a home in which English was not spoken had attempted suicide, and 1% of students who lived in a home in which English was spoken had attempted suicide;
- 1% of students who lived in a home in which English was not spoken had been involved in a pregnancy, and 1% of students who lived in a home in which English was spoken had been involved in a pregnancy;
- 1% of students who lived in a home in which English was not spoken sold drugs, but 0.5% of students who lived in a home in which English was spoken sold drugs;
- 4% of students who lived in a home in which English was not spoken used drugs, but 3% of students who lived in a home in which English was spoken used drugs;
- 5% of students who lived in a home in which English was not spoken lived with family members who used drugs, but 3% of students who lived in a home in which English was spoken lived with family members who used drugs;
- 4% of students who lived in a home in which English was not spoken used alcohol, but 5% of students who lived in home in which English was spoken used alcohol;
- 5% of students who lived in a home in which English was not spoken had a parent who was alcoholic, but 4% of students who lived in home in which English was spoken had a parent who was alcoholic;
- 3% of students who lived in a home in which English was not spoken had been arrested, but 1% of students who lived in home in which English was spoken had been arrested;
- 2% of students who lived in a home in which English was not spoken had been physically or sexually abused, and 2% of students who lived in home in which English was spoken had been physically or sexually abused.
- In all, 20% of students who lived in a home in which English was not spoken had low grades in school, but 13% of students who lived in a home in which English was spoken had low grades in school;
- 17% of students who lived in a home in which English was not spoken failed courses in school, but 9% of students who lived in a home in which English was spoken failed courses in school;
- 27% of students who lived in a home in which English was not spoken

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

were overage in grade, but 16% of students who lived in a home in which English was spoken were overage in grade;

- 20% of students who lived in a home in which English was not spoken had been retained in grade, but 14% of students who lived in a home in which English was spoken had been retained in grade;
- 10% of students who lived in a home in which English was not spoken had excessive absences from school, but 7% of students who lived in a home in which English was spoken had excessive absences from school;
- 16% of students who lived in a home in which English was not spoken had low self-esteem, but 12% of students who lived in a home in which English was spoken had low self-esteem;
- 10% of students who lived in a home in which English was not spoken had been referred to special education, and 10% of students who lived in a home in which English was spoken had been referred to special education;
- 17% of students who lived in a home in which English was not spoken had low reading scores, but 9% of students who lived in a home in which English was spoken had low reading scores.
- Parents of 5% of students who lived in a home in which English was not spoken were sick last year, but parents of 4% of students who lived in a home in which English was spoken were sick last year;
- a parent of 1% of students who lived in a home in which English was not spoken died last year, and a parent of 1% of students who lived in a home in which English was spoken died last year;
- a parent of 7% of students who lived in a home in which English was not spoken lost his or her job last year, but a parent of 4% of students who lived in a home in which English was spoken lost a job last year;
- 5% of students who lived in a home in which English was not spoken had a friend die last year, and 5% of students who lived in a home in which English was spoken had a friend die last year;
- 4% of students who lived in a home in which English was not spoken were seriously ill or in an accident last year, but 3% of students who lived in a home in which English was spoken were seriously ill or in an accident last year;
- 1% of students who lived in a home in which English was not spoken had a sibling die last year, but 0.5% of students who lived in a home in which English was spoken had a sibling die last year.
- Fathers of 33% of students who lived in homes in which English was not spoken were unemployed or held a low-level job, but fathers of 16% of students who lived in a home in which English was spoken were unemployed or held a low-level job;
- fathers of 24% of students who lived in a home in which English was not

spoken had not graduated from high school, but fathers of 7% of students who lived in a home in which English was spoken had not graduated from high school;

- mothers of 29% of students who lived in a home in which English was not spoken were unemployed or held a low-level job, but mothers of 19% of students who lived in a home in which English was spoken were unemployed or held a low-level job;

- mothers of 27% of students who lived in a home in which English was not spoken had not graduated from high school, but mothers of 7% of students who lived in a home in which English was spoken had not graduated from high school;

- 8% of students who lived in a home in which English was not spoken had parents whose attitude about education was negative, but 5% of students who lived in a home in which English was spoken had parents whose attitude about education was negative.

- A total of 30% of students who lived in a home in which English was not spoken did not live with their real mother and real father, but 35% of students who lived in a home in which English was spoken did not live with their real mother and real father;

- 27% of students who lived in home in which English was not spoken moved frequently, but 15% of students who lived in home in which English was spoken moved frequently;

- 31% of students who lived in a home in which English was not spoken changed schools frequently, but 23% of students who lived in a home in which English was spoken changed schools frequently;

- parents of 7% of students who lived in a home in which English was not spoken got divorced last year, and parents of 7% of students who lived in a home in which English was spoken got divorced last year.

SUMMARY

There were six items that comprised the family socioeconomic situation factor, and the responses of students at risk on each of those items were compared with the responses of students not at risk on each of those items on 33 other items that comprised the risk scale used in this study. In all, 198 such comparisons were made.

These comparisons are also described in tables 34 through 39, presented here and in volume 2 (appendix D, and in charts 103 through 136 in appendix G).

Of the 198 comparisons, 95% were in the same direction (students at risk on the item were more likely to be at risk on other items than students not at risk on the item), and 76% of the comparisons differed at a level that was significant statistically (.001). Again, as was reported in other appendices here, the differences were consistently in the hypothesized direction, and the differences were of such a degree that the likelihood that they might have occurred by chance was minimal.

APPENDIX F

RISK AND FAMILY INSTABILITY COMPARISONS

The information about 21,706 students provided by teachers and counselors to researchers on the 45-item scale that had been developed from a review of 115 research studies was subjected to factor analysis. Five factors emerged:

- personal pain
- academic failure
- family tragedy
- family socioeconomic situation
- family instability

As a result of logical and empirical considerations, the 45-item scale was reduced to a 34-item scale. Eventually, some of the 34 items were combined to produce a 24-item scale, but the results presented here were based on multiple analyses of the 34-item scale.

The description that follows organizes the discussion around each of the items associated with one of the five factors cited above – family instability. Students were separated (evidence of risk versus no evidence of risk) on one of four items associated with the family instability factor, then compared on all of the other items on the scale.

FAMILY INSTABILITY

The four items that comprised the family instability factor were:

- broken home
- moved frequently
- changed schools frequently
- parents divorced last year

Reading about these comparisons is slow and laborious, but the evidence is overwhelming: students at risk on one item were much more likely to be at risk on the other items than students who were not at risk on the first item. If you want to extend the comparison, the narrative analysis below parallels the tabular descriptions, presented here and in volume 2 (appendix D, tables 40 through 43, and in appendix G, charts 137 through 170).

Table 40

Comparison of students who lived in broken home situation with those who did not on various risk items

(N = 7,505 and 14,201)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	9.6	4.0	267.54	.001
Attempted suicide	1.3	.5	40.81	.001
Involved in pregnancy	1.0	.4	34.74	.001
Student sold drugs	.8	.4	15.79	.001
Student used drugs	4.3	2.2	78.65	.001
Family used drugs	6.0	2.1	232.52	.001
Student used alcohol	6.4	3.7	86.25	.001
Parent alcoholic	5.9	2.4	179.00	.001
Student arrested	2.1	.9	54.15	.001
Student abused	3.5	1.0	164.13	.001
Low grades in school	18.5	10.7	256.61	.001
Failed courses	12.8	6.9	211.29	.001
Overage in grade	22.5	12.9	329.90	.001
Retained in grade	21.0	10.7	421.17	.001
Excessive absences	10.2	5.1	198.87	.001
Low self-esteem	17.4	9.7	263.14	.001
Referred special education	11.5	8.9	38.46	.001
Low reading scores	12.2	7.8	117.71	.001
Parent sick last year	5.6	3.2	67.51	.001
Parent died last year	2.1	.3	188.81	.001
Parent lost job last year	5.5	3.2	68.31	.001
Friend died last year	6.0	3.9	52.10	.001
Student ill last year	4.3	2.6	41.95	.001
Sibling died last year	.7	.4	8.70	.003
Father low-level job	17.3	16.6	1.47	
Father not high school graduate	8.1	7.5	2.26	
Mother low-level job	27.0	15.7	396.37	.001
Mother not high school graduate	11.1	6.9	114.81	.001
Parents' attitude negative	7.5	3.7	145.45	.001
Language not English	4.3	5.3	10.86	.001
Broken home	100	0		
Moved frequently	25.4	10.8	789.54	.001
Changed schools frequently	28.4	20.7	164.07	.001
Parents divorced last year	15.8	2.1	1456.42	.001

LIVE IN BROKEN HOME VERSUS NOT LIVE IN BROKEN HOME

- 10%* of students who lived in a broken home (not with real mother and real father) were suspended from school, but 4% of students who came from an intact home with real mother and real father were suspended from school;
- 1% of students who lived in a broken home attempted suicide, but 0.5% of students who lived with real mother and real father attempted suicide;
- 1% of students who lived in a broken home were involved in a pregnancy, but 0.4% of students who lived with real mother and real father were involved in a pregnancy;
- 1% of students who lived in a broken home sold drugs, but less than 0.5% of students who lived with real mother and real father sold drugs;
- 4% of students who lived in a broken home used drugs, but 2% of students who lived with real mother and real father used drugs;
- 6% of students who came from a broken home lived with family members who used drugs, but 2% of students who lived with real mother and real father lived in a family in which family members used drugs;
- 6% of students who lived in a broken home used alcohol, but 4% of students who lived with real mother and real father used alcohol;
- 6% of students who lived in a broken home had a parent who drank excessively, but 2% of students who lived with real mother and real father had a parent who drank excessively;
- 2% of students who lived in a broken home had been arrested, but 1% of students who lived with real mother and real father had been arrested;
- 4% of students who lived in a broken home had been physically or sexually abused, but 1% of students who lived with real mother and real father had been abused.
- In school, 19% of students who came from a broken home made low grades in school, but 11% of students who lived with real mother and real father had low grades in school;
- 13% of students who came from a broken home failed courses in school, but 7% of students who lived with real mother and real father failed courses in school;
- 23% of students who came from a broken home were overage in grade, but 13% of students who lived with real mother and real father were overage in grade;
- 21% of students who came from a broken home had been retained in grade, but 11% of students who lived with real mother and real father had been retained in grade;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 10% of students who came from a broken home had excessive absences from school, but 5% of students who lived with real mother and real father had excessive absences from school;

- 17% of students who came from a broken home had low self-esteem, but 10% of students who lived with real mother and real father had low self-esteem;

- 12% of students who came from a broken home had been referred to special education, but 9% of students who lived with real mother and real father had been referred to special education;

- 12% of students who lived in a broken home had low reading scores, but 8% of students who lived with real mother and real father had low reading scores.

- Parents of 6% of students who lived in broken homes were sick last year, but parents of 3% of students who lived with real mother and real father were sick last year;

- 2% of students who lived in a broken home had a parent die last year, but less than 0.3% of students who lived with real mother and real father had a parent die last year;

- 6% of students who lived in a broken home had a parent who lost his or her job last year, but 3% of students who lived with real mother and real father had a parent who lost a job last year;

- 6% of students who lived in a broken home had a friend die last year, but 4% of students who lived with real mother and real father had a friend die last year;

- 4% of students who came from a broken home were seriously ill or in an accident last year, but 3% of students who lived with real mother and real father were seriously ill or in an accident;

- 1% of students who came from a broken home had a sibling die last year, but 0.4% of students who lived with real mother and real father had a sibling die last year.

- Fathers of 17% of students who came from a broken home were unemployed or held low-level jobs, and fathers of 17% of students who lived with real mother and real father had fathers who were unemployed or held low-level jobs;

- fathers of 8% of students who lived in broken homes had not graduated from high school, and fathers of 8% of students who lived with real mother and real father had not graduated from high school;

- mothers of 27% of students who came from broken homes were unemployed or held low-level jobs, but mothers of 16% of students who lived with real mother and real father were unemployed or held low-level jobs;

- mothers of 11% of students who came from broken homes had not graduated from high school, but mothers of 7% of students who lived with real mother and real father had not graduated from high school;

- parents of 8% of students who came from broken homes had negative attitudes about education, but parents of 4% of students who lived with real mother and real father had negative attitudes about education;

- 4% of students who came from a broken home lived in a home in which English was not spoken, but 5% of students who lived with real mother and real father lived in a home in which English was not spoken.

- In all, 25% of students who came from a broken home moved frequently, but 11% of students who lived with real mother and real father moved frequently;

- 28% of students who lived in a broken home changed schools frequently, but 21% of students who lived with real mother and real father changed schools frequently;

- parents of 16% of students who came from a broken home got divorced last year, but parents of 2% of students who lived with real mother and real father got divorced last year.

Table 41

Comparison of students who moved frequently with students who did not move frequently on various risk items

(N = 3,432 and 18,274)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	7.8	5.6	25.39	.001
Attempted suicide	1.4	.7	17.51	.001
Involved in pregnancy	1.2	.5	25.34	.001
Student sold drugs	1.3	.4	37.81	.001
Student used drugs	5.0	2.5	60.12	.001
Family used drugs	6.0	3.0	77.86	.001
Student used alcohol	6.5	4.3	32.77	.001
Parent alcoholic	6.5	3.1	99.49	.001
Student arrested	2.7	1.0	64.54	.001
Student abused	4.0	1.5	97.22	.001
Low grades in school	18.9	12.4	104.96	.001
Failed courses	13.4	8.1	98.88	.001
Overage in grade	22.8	15.0	128.95	.001
Retained in grade	20.1	13.2	111.79	.001
Excessive absences	9.4	6.4	39.22	.001
Low self-esteem	18.3	11.3	130.64	.001
Referred special education	10.9	9.6	5.51	
Low reading scores	11.6	9.0	23.46	.001
Parent sick last year	7.5	3.4	122.43	.011
Parent died last year	1.7	.8	29.37	.001
Parent lost job last year	8.8	3.1	243.98	.001
Friend died last year	7.1	4.1	57.28	.001
Student ill last year	5.0	2.9	39.82	.001
Sibling died last year	.9	.5	9.75	.002
Father low-level job	21.1	16.1	52.25	.001
Father not high school graduate	10.8	7.2	54.84	.001
Mother low-level job	26.3	18.4	114.50	.001
Mother not high school graduate	12.6	7.5	95.22	.001
Parents' attitude negative	7.6	4.5	58.59	.001
Language not English	8.2	4.3	96.73	.001
Broken home	55.5	30.6	789.54	.001
Moved frequently	100	0		
Changed schools frequently	69.2	14.7	4783.03	.001
Parents divorced last year	14.9	5.3	418.01	.001

MOVED FREQUENTLY VERSUS DID NOT MOVE FREQUENTLY

- 8%* of students who moved frequently had been suspended from school, but 6% of students who had not moved frequently had been suspended from school;

- 1% of students who moved frequently had attempted suicide, and 1% of students who had not moved frequently had attempted suicide;

- 1% of students who moved frequently were involved in a pregnancy, but 0.5% of students who had not moved frequently were involved in a pregnancy;

- 1% of students who moved frequently sold drugs, but 0.4% of students who had not moved frequently sold drugs;

- 5% of students who moved frequently used drugs, but 3% of students who had not moved frequently used drugs;

- 6% of students who moved frequently lived with family members who used drugs, but 3% of students who had not moved frequently lived with family members who used drugs;

- 7% of students who moved frequently used alcohol, but 4% of students who had not moved frequently used alcohol;

- 7% of students who moved frequently had a parent who drank excessively, but 3% of students who had not moved frequently had a parent who drank excessively;

- 3% of students who moved frequently had been arrested, but 1% of students who had not moved frequently had been arrested;

- 4% of students who moved frequently had been physically or sexually abused, but 2% of students who had not moved frequently had been abused.

- There were 19% of students who moved frequently who had low grades in school, but 12% of students who had not moved frequently had low grades in school;

- 13% of students who moved frequently failed courses in school, but 8% of students who had not moved frequently failed courses in school;

- 23% of students who moved frequently were overage in grade, but 15% of students who had not moved frequently were overage in grade;

- 20% of students who moved frequently had been retained in grade, but 13% of students who had not moved frequently had been retained in grade;

- 9% of students who moved frequently had excessive absences from school, but 6% of students who had not moved frequently had excessive absences from school;

** Note: Percentage numbers in the narrative analyses are rounded off.*

- 18% of students who moved frequently had low self-esteem, but 11% of students who had not moved frequently had low self-esteem;

- 11% of students who moved frequently had been referred to special education, but 10% of students who had not moved frequently had been referred to special education;

- 12% of students who moved frequently had low reading scores, but 9% of students who had not moved frequently had low reading scores.

- A parent of 8% of students who had moved frequently was sick last year, but a parent of 3% of students who had not moved frequently was sick last year;

- parents of 2% of students who moved frequently were sick last year, but parents of 1% of students who had not moved frequently were sick last year;

- a parent of 9% of students who moved frequently lost his or her job, but a parent of 3% of students who had not moved frequently lost his or her job;

- 7% of students who moved frequently had a friend die last year, but 4% of students who had not moved frequently had a friend die last year;

- 5% of students who moved frequently were seriously ill or in an accident last year, but 3% of students who had not moved frequently were seriously ill or in an accident last year;

- 1% of students who moved frequently had a sibling die last year, but 0.5% of students who had not moved frequently had a sibling die last year.

- Fathers of 21% of students who moved frequently were unemployed or held low-level jobs, but fathers of 16% of students who had not moved frequently were unemployed or held low-level jobs;

- fathers of 11% of students who moved frequently had not graduated from high school, but fathers of 7% of students who had not moved frequently had not graduated from high school;

- mothers of 26% of students who moved frequently were unemployed or held low-level jobs, but mothers of 18% of students who had not moved frequently were unemployed or held low-level jobs;

- mothers of 13% of students who moved frequently had not graduated from high school, but mothers of 8% of students who had not moved frequently had not graduated from high school;

- the parents of 8% of students who moved frequently had negative attitudes about education, but the parents of 5% of students who had not moved frequently had negative attitudes about education;

- 8% of students who moved frequently lived in a home in which English was not spoken, but 4% of students who had not moved frequently lived in a home in which English was not spoken.

- Finally, 56% of students who moved frequently came from a broken home, but 31% of students who had not moved frequently lived with their real mother and real father;

- 69% of students who moved frequently changed schools frequently, but 15% of students who had not moved frequently changed schools frequently;

- parents of 15% of students who moved frequently got divorced last year, but parents of 5% of students who had not moved frequently got divorced last year.

Table 42

Comparison of students who changed schools frequently with those who did not on various risk items

(N = 5,068 and 16,638)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	5.7	6.0	.48	
Attempted suicide	1.0	.7	4.54	
Involved in pregnancy	.7	.5	2.25	
Student sold drugs	.8	.5	7.21	.01
Student used drugs	3.5	2.7	9.00	.003
Family used drugs	3.7	3.4	1.33	
Student used alcohol	4.5	4.6	.09	
Parent alcoholic	4.2	3.4	7.55	.01
Student arrested	1.9	1.1	17.74	.001
Student abused	2.5	1.7	13.66	.001
Low grades in school	16.3	12.5	46.99	.001
Failed courses	9.7	8.7	4.83	
Overage in grade	19.4	15.2	50.27	.001
Retained in grade	17.0	13.5	39.01	.001
Excessive absences	7.6	6.7	5.33	
Low self-esteem	16.1	11.2	84.68	.001
Referred special education	10.6	9.6	4.69	
Low reading scores	10.3	9.1	7.09	.01
Parent sick last year	4.9	3.8	13.43	.001
Parent died last year	1.2	.8	8.01	.01
Parent lost job last year	5.2	3.6	25.01	.001
Friend died last year	3.7	4.9	10.86	.001
Student ill last year	3.5	3.1	2.19	
Sibling died last year	.5	.6	.31	
Father low-level job	19.9	15.9	43.38	.001
Father not high school graduate	8.5	7.5	5.99	.01
Mother low-level job	23.0	18.6	48.48	.001
Mother not high school graduate	9.0	8.1	4.28	
Parents' attitude negative	6.6	4.5	36.09	.001
Language not English	6.5	4.4	35.13	.001
Broken home	42.1	32.3	164.07	.001
Moved frequently	46.8	6.4	4783.03	.001
Changed schools frequently	100	0		
Parents divorced last year	9.4	6.0	69.90	.001

STUDENTS CHANGED SCHOOLS FREQUENTLY VERSUS DID NOT CHANGE SCHOOLS FREQUENTLY

- 6%* of students who changed schools frequently had been suspended from school, and 6% of students who had not changed schools frequently had been suspended from school;
- 1% of students who changed schools frequently attempted suicide, and 1% of students who had not changed schools frequently attempted suicide;
- less than 1% of students who changed schools frequently had been involved in a pregnancy, and 0.5% of students who had not changed schools frequently had been involved in a pregnancy;
- 1% of students who changed schools frequently sold drugs, and 0.5% of students who had not changed schools frequently sold drugs;
- 4% of students who changed schools frequently used drugs, and 3% of students who had not changed schools frequently used drugs;
- 4% of students who changed schools frequently lived in a family that used drugs, and 3% of students who had not changed schools frequently lived in a family that used drugs.
- 5% of students who changed schools frequently used alcohol, and 5% of students who had not changed schools frequently used alcohol;
- 4% of students who changed schools frequently had a parent who drank excessively, and 3% of students who had not changed schools frequently had a parent who drank excessively;
- 2% of students who changed schools frequently had been arrested, and 1% of students who had not changed schools frequently had been arrested;
- 3% of students who changed schools frequently had been physically or sexually abused, and 2% of students who had not changed schools frequently had been abused.
- In school matters, 16% of students who changed schools frequently had low grades in school, but 13% of students who had not changed schools frequently had low grades in school;
- 10% of students who changed schools frequently failed courses in school, but 9% of students who had not changed schools frequently failed courses in school;
- 19% of students who changed schools frequently were overage in grade, but 15% of students who had not changed schools frequently were overage in grade;
- 17% of students who changed schools frequently had been retained in grade, but 14% of students who had not changed schools frequently had been retained in grade;

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

- 8% of students who changed schools frequently had excessive absences from school, but 7% of students who had not changed schools frequently had excessive absences from school;

- 16% of students who changed school frequently had low self-esteem, but 11% of students who had not changed schools frequently had low self-esteem;

- 11% of students who changed schools frequently had been referred to special education, but 10% of students who had not changed schools frequently had been referred to special education;

- and 10% of students who changed schools frequently had low reading scores, but 9% of students who had not changed schools frequently had low reading scores.

- Parents of 5% of students who changed schools frequently were sick last year, but parents of 4% of students who had not changed schools frequently were sick last year;

- a parent of 1% of students who changed schools frequently died last year, and a parent of 1% of students who had not changed schools frequently died last year;

- a parent of 5% of students who changed schools frequently lost his or her job last year, and a parent of 4% of students who had not changed schools frequently lost a job last year;

- 4% of students who changed schools frequently had a friend die last year, but 5% of students who changed schools frequently did not have a friend die last year;

- 4% of students who changed schools frequently were seriously ill or in an accident last year, but 3% of students who had not changed schools frequently were seriously ill or in an accident last year;

- 0.5% of students who changed schools frequently had a sibling die last year, and slightly more than 0.5% of students who had not changed schools frequently had a sibling die last year.

- Fathers of 20% of students who changed schools frequently were unemployed or worked in low-level jobs, but fathers of 16% of students who had not changed schools last year were unemployed or worked in low-level jobs;

- fathers of 9% of students who changed schools frequently had not graduated from high school, but fathers of 8% of students who had not changed schools frequently had not graduated from high school;

- mothers of 23% of students who changed schools frequently were unemployed or held low-level jobs, but mothers of 19% of students who had not changed schools frequently were unemployed or held low-level jobs;

- mothers of 9% of students who changed schools frequently were not high school graduates, but mothers of 8% of students who had not changed schools frequently were not high school graduates.

- parents of 7% of students who changed schools frequently held a negative attitude about education, but parents of 5% of students who had not changed schools frequently held a negative attitude about education;
- 7% of students who changed schools frequently lived in a home in which English was not spoken, but 4% of students who had not changed schools frequently lived in a home in which English was not spoken.
- More than 42% of students who changed schools frequently did not live with their real mother and real father, but 32% of students who had not changed schools frequently did not lived with their real mother and real father;
- 47% of students who changed schools frequently moved frequently, but 6% of students who had not changed schools frequently moved frequently;
- the parents of 9% of students who changed schools frequently got divorced last year, but the parents of 6% of students who had not moved frequently got divorced last year.

Table 43

Comparison of students whose parents divorced during last year with those whose parents did not on various risk items

(N = 1,484 and 20,222)

Item	At Risk	Not At Risk	Chi Square	Level of Significance
Suspended from school	8.8	5.7	23.71	.001
Attempted suicide	2.2	.7	39.54	.001
Involved in pregnancy	1.6	.5	30.68	.001
Student sold drugs	1.1	.5	7.59	.01
Student used drugs	5.9	2.7	51.33	.001
Family used drugs	9.5	3.0	175.04	.001
Student used alcohol	8.6	4.3	58.15	.001
Parent alcoholic	11.5	3.0	286.35	.001
Student arrested	2.3	1.2	12.54	.001
Student abused	6.4	1.5	178.18	.001
Low grades in school	16.0	13.2	9.64	.002
Failed courses	12.7	8.7	27.91	.001
Overage in grade	19.3	16.1	11.54	.001
Retained in grade	19.3	13.9	33.29	.001
Excessive absences	12.1	6.5	66.19	.001
Low self-esteem	20.9	11.7	106.51	.001
Referred special education	12.1	9.6	9.74	.002
Low reading scores	11.7	9.2	9.68	.002
Parent sick last year	9.2	3.7	110.41	.001
Parent died last year	1.2	.9	1.59	
Parent lost job last year	12.2	3.4	278.23	.001
Friend died last year	7.2	4.4	24.78	.001
Student ill last year	6.2	3.0	45.77	.001
Sibling died last year	1.9	.4	53.15	.001
Father low-level job	19.3	16.7	6.63	.01
Father not high school graduate	10.7	7.5	19.74	.001
Mother low-level job	23.7	19.3	16.92	.001
Mother not high school graduate	11.9	8.1	25.92	.001
Parents' attitude negative	8.6	4.8	41.91	.001
Language not English	4.7	4.9	.13	
Broken home	80.1	31.2	1456.42	.001
Moved frequently	34.5	14.4	418.01	.001
Changed schools frequently	32.2	22.7	69.90	.001
Parents divorced last year	100	0		

PARENTS DIVORCED LAST YEAR VERSUS NOT DIVORCED

- 9%* of students whose parents divorced last year were suspended from school, but 6% of students whose parents had not divorced were suspended from school;
- 2% of students whose parents divorced last year attempted suicide, but 1% of students whose parents had not divorced attempted suicide;
- 2% of students whose parents divorced last year were involved in a pregnancy, but 0.5% of students whose parents had not divorced were involved in a pregnancy;
- 1% of students whose parents divorced last year sold drugs, but 0.5% of students whose parents had not divorced sold drugs;
- 6% of students whose parents divorced last year used drugs, but 3% of students whose parents had not divorced used drugs;
- 10% of students whose parents divorced last year lived in a family in which other members used drugs, but 3% of students whose parents had not divorced lived in a family in which other members used drugs;
- 9% of students whose parents divorced last year used alcohol, but 4% of students whose parents had not divorced used alcohol;
- 12% of students whose parents divorced last year had an alcoholic parent, but 3% of students whose parents had not divorced had an alcoholic parent;
- 2% of students whose parents divorced last year had been arrested, but 1% of students whose parents had not divorced last year had been arrested;
- 6% of students whose parents divorced last year had been physically or sexually abused, but 2% of students whose parents had not divorced last year had been abused.
- An even 16% of students whose parents divorced last year had low grades in school, but 13% of students whose parents had not divorced had low grades in school;
- 13% of students whose parents divorced last year failed courses in school, but 9% of students whose parents had not divorced failed courses in school;
- 19% of students whose parents divorced last year were overage in grade, but 16% of students whose parents had not divorced were overage in grade;
- 19% of students whose parents divorced last year had been retained in grade, but 14% of students whose parents had not divorced had been retained in grade;
- 12% of students whose parents divorced last year had excessive ab-

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* *Note: Percentage numbers in the narrative analyses are rounded off.*

sences from school, but 7% of students whose parents had not divorced had excessive absences from school;

- 21% of students whose parents divorced last year had low self-esteem, but 12% of students whose parents had not divorced had low self-esteem;
- 12% of students whose parents divorced last year had been referred to special education, but 10% of students whose parents had not divorced had been referred to special education;
- 12% of students whose parents divorced last year had low reading scores, but 9% of students whose parents had not divorced had low reading scores.
- A parent of 9% of students whose parents divorced last year was sick, but a parent of 4% of students whose parents had not divorced was sick;
- 1% of students whose parents divorced last year had a parent die last year, and 1% of students whose parents had not divorced had a parent die last year;
- 12% of students whose parents divorced last year had a parent who lost his or her job, but 3% of students whose parents had not divorced had a parent who lost a job;
- 7% of students whose parents divorced last year had a friend die last year, but 4% of students whose parents had not divorced had a friend die last year;
- 6% of students whose parents divorced last year were seriously ill or in an accident last year, but 3% of students whose parents had not divorced were seriously ill or in an accident last year;
- 2% of students whose parents divorced last year had a sibling die last year, but 0.4% of students whose parents had not divorced had a sibling die.
- Fathers of 19% of students whose parents divorced last year were unemployed or held low-level jobs, but fathers of 17% of students whose parents had not divorced were unemployed or held low-level jobs;
- fathers of 11% of students whose parents divorced last year had not graduated from high school, but fathers of 8% of students whose parents had not divorced had not graduated from high school;
- mothers of 24% of students whose parents divorced last year were unemployed or held low-level jobs, but mothers of 19% of students whose parents had not divorced were unemployed or held low-level jobs;
- mothers of 12% of students whose parents divorced last year had not graduated from high school, but mothers of 8% of students whose parents had not divorced had not graduated from high school;
- the parents of 9% of students whose parents divorced last year had negative attitudes about education, but the parents of 5% of students whose par-

ents had not divorced had negative attitudes about education;

- 5% of students whose parents divorced last year lived in a home in which English was not spoken, and 5% of students whose parents had not divorced lived in a home in which English was not spoken.

- More than 80% of students whose parents divorced last year did not live with their real mother and real father, but 31% of students whose parents had not divorced last year did not live with real mother and real father;

- 35% of students whose parents divorced last year moved frequently, but 14% of students whose parents had not divorced moved frequently;

- 32% of students whose parents divorced last year changed schools frequently, but 23% of students whose parents had not divorced changed schools frequently.

SUMMARY

There were only four items that comprised the family instability factor:

- student did not live with real mother and real father
- student moved frequently
- student changed schools frequently
- parents divorced last year

The first and last items were obviously related; the original intention was to collect information about a student's home situation, and the last item was designed to produce information about the kinds of stress that might have been associated with a recent divorce. As is described in more detail in volume 2, the 34 risk items on which we are reporting here were eventually collapsed into a 24-item scale, and the two items mentioned above that overlap were combined into one item on the final scale.

In all, 132 comparisons were presented here. These comparisons are also described in tables 40 through 43, presented above and in volume 2 (appendix D, and in charts 137 through 170 in appendix G).

Of the 132 comparisons reported here, 95% of the differences were in the same direction. That is, students at risk on one of the family instability items were compared with students who were not at risk on that one item on each of the 33 other items that comprised the total scale, and in 95% of the comparisons, students who were at risk on the first item were more at risk on the 33 other items. Furthermore, 81% of those comparisons differed at a level that was significant statistically (.001).